Narrative Information Sheet

IV.D.1 Applicant Identification
Tolowa Dee-ni' Nation
140 Rowdy Creek Rd
Smith River, CA 95567

IV.D.2. Funding Requested
IV.D.2.a. Grant Type
Single Site Clean-up

IV.C.2.b. Federal Funds Requested
IV.D.2.b.i Funds Requested
$500,000.00

IV.D.2.b.ii Cost Share Waiver
Cost Share Waiver not requested

IV.D.2.c Contamination
Hazardous Substances

IV.D.3. Location
Smith River, Del Norte County, California, Tolowa Dee-ni' Nation (Tribal Fee Land)

IV.D.4. Property Information
Xaa-wan-k'wvt Village and Resort, South R.V. Park
12370 US-101 Smith River, Del Norte County, California 95567

IV.D.5. Contacts
IV.D.5.a. Project Director
Megan Van Pelt, Tolowa Dee-ni' Nation Natural Resources Director
(707) 487-9255 x 1159
megan.vanpelt@tolowa.com
140 Rowdy Creek Rd
Smith River, CA 95567

IV.D.5.b. Chief Executive/Highest Ranking Elected Official
Denise Richards-Padgette, Tolowa Dee-ni' Nation Tribal Council Chairperson
(707) 487-9255 x 1126
denise.padgette@tolowa.com
140 Rowdy Creek Rd
Smith River, CA 95567

IV.D.6. Population
Tolowa Dee-ni' Nation Tribal Citizens - 1771
Non-Tribal - 3,351

IV.D.7. Other Factors Checklist

Other Factors	**Page # add page numbers from narrative**
Community Population is 10,000 or less	yes – page (5) five of narrative
The applicant is, or will assist, a federally recognized Indian Tribe or United States territory.	yes - page (1) of narrative
Secured firm leveraging commitment ties directly to the project and will facilitate completion of the project/redevelopment; secured resource is identified in the Narrative and substantiated in the attached documentation.	yes – page (3) three and (4) four of narrative
The proposed site(s) is adjacent to a body of water (i.e., the border of the site(s) is contiguous or partially contiguous to the body of water, or would be contiguous or partially contiguous with a body of water but for a street, road, or other public thoroughfare separating them).	yes - page (1) one and (3) three of narrative
The redevelopment of the proposed cleanup site(s) will facilitate renewable energy from wind, solar, or geothermal energy; or any energy efficiency improvement projects.	yes – page (2) two and (4) four and of narrative

IV.D.8. Letter from the State or Tribal Environmental Authority
See Attachment F for Tribal Environmental Authority Letter

Hardship Waiver Request – not requested

Tolowa Dee-ni' Nation

140 Rowdy Creek Rd, Smith River, CA 95567-9525
Ph: (707) 487-9255 Fax: (707) 487-0930

January 10, 2019

Environmental Protection Agency (Region 9)
75 Hawthorne St.
San Francisco, CA 94105

Re: Xaa-wan'-k'wvt Village and Resort South R.V. Park, Brownfields Clean-up
RFP # EPA-OLEM-OBLR-18-07

To Whom It May Concern:

The Tolowa Dee-ni' Nation (TDN) is a Self-governance Tribe governed by a Tribal Council comprised of seven elected members. Tribal Council is empowered under the TDN Constitution Article IV, section 1 subsections (f), (j), (l) and (r) to protect and preserve the wildlife and natural resources of the Tribe's ancestral territory; to regulate hunting, fishing and trapping within the Tribe's ancestral territory; to enact ordinances to regulate the use of all the Nation's land through zoning, taxation and otherwise; to manage and control land held by the Nation and to establish enterprises and other economic projects and programs for the Nation; and to exercise powers consistent with the Constitution, as needed to carry out these duties. The Tribe's Constitution further provides that the authority and jurisdiction of the Tribe shall extend to all land within the Tribe's ancestral territory (Figure 1). The TDN has established advisory committees comprised of TDN citizens containing unique and diverse backgrounds. Tribal advisory committees, including the Culture Committee and the Natural Resources and Harvesting Committee, provide collaborative input on their respective areas of expertise that advise and inform TDN staff and government.

The TDN Natural Resources Department is the Tribal Environmental Authority that will oversee the brownfields Xaa-wan'-k'wvt Village South RV Park clean-up project. This Tribal Environmental Authority will take the lead on implementing the project. The Natural Resources Department will work collaboratively with the TDN Planning Department and the Tribal Heritage Preservation Office to ensure the project aligns with all environmental regulations. The Natural Resources Department will also collaborate with multiple Government Agencies during the assessment, cleanup and redevelopment processes. Examples of agencies and potential project interaction include:

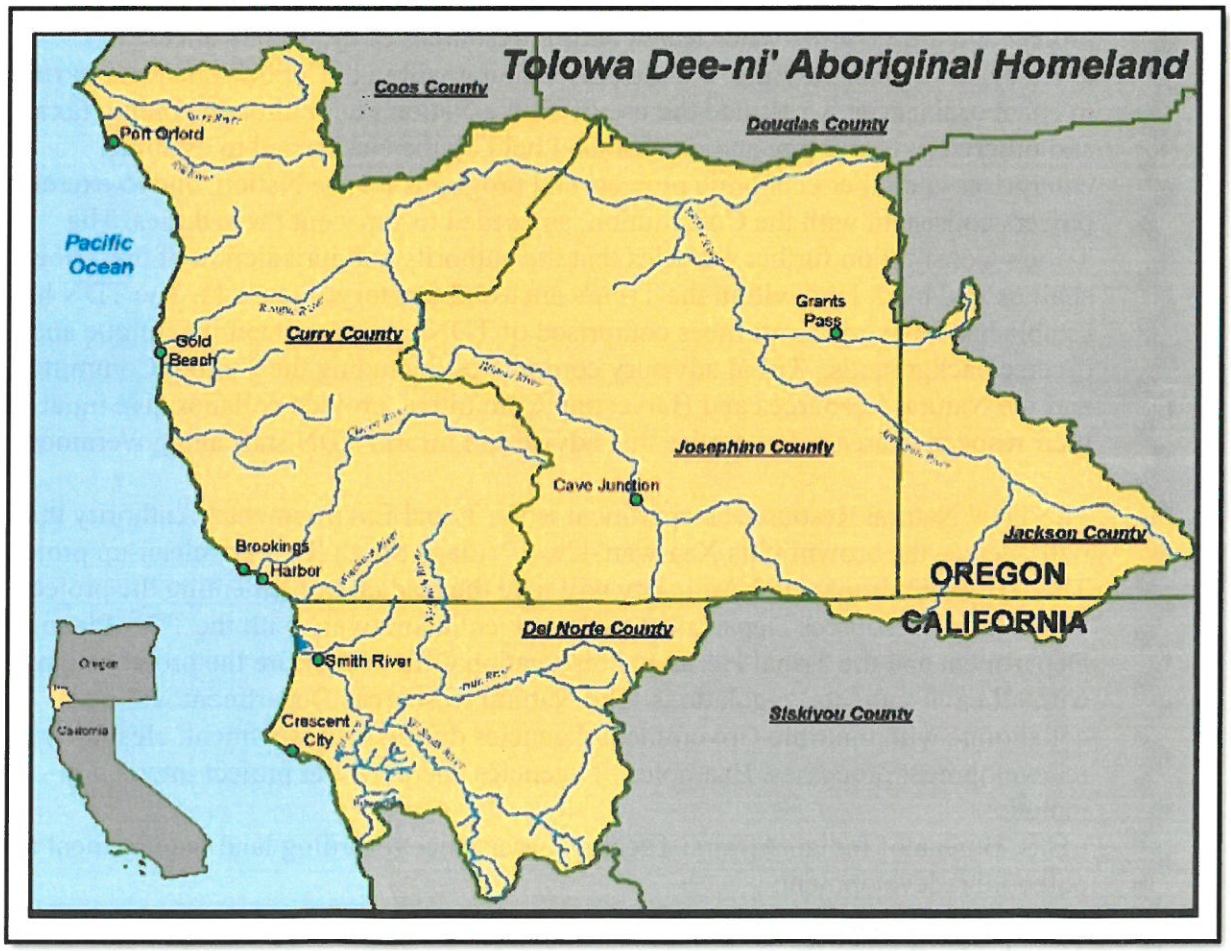
• U.S. Bureau of Indian Affairs: Technical assistance regarding land management and potential redevelopment.
• U.S. Environmental Protection Agency: Technical assistance for brownfields will be provided by Region IX.

• Elk Valley Rancheria Environmental Program: General advice from neighboring Tribe that has successfully completed brownfields assessments and cleanups.
• TDN Tribal Heritage Preservation Office and State Historic Preservation Office: Guidance and technical assistance regarding protection of cultural and historic places.
• California Coastal Commission: Consultation and coordination, particularly when it comes to redevelopment as the project is in the Coastal Zone on fee land.
• U.S. National Oceanic and Atmospheric Administration: Communication to update them on project's potential benefits to estuary and listed species.
• California State Lands Commission: Communication and coordination for any potential impacts to tidelands during clean up and/or redevelopment

Sincerely,

Megan Van Pelt
Tolowa Dee-ni' Nation, Natural Resources Director

Figure 1: Tolowa Dee-ni' Nation Ancestral Territory



IV.E.1 Project Area Description and Plans for Revitalization (30 pts.)

IV.E.1.a Target Area and Brownfields (8 pts.)

IV.E.1.a.i Background and Description of Target Area (3 pts.): The Xaa-wan'-k'wvt Village and Resort (XVR) is a 65 acre area located in the rural community of Smith River, Del Norte County, California. For many decades the land now known as XVR was operated by non-Indian owners as two separate economic ventures – The Ship Ashore and Salmon Harbor – for commercial, residential and recreational uses. The Ship Ashore included a hotel, restaurant, condos (16), recreation hall, boat ramp, registration office, restrooms and laundry (2), several small outbuildings, maintenance yard, large ship, and RV/mobile home sites (~200) for short-term (R.V and tent camping) and long-term (fixed-place mobile homes) occupants. Due to dilapidation, safety, and concern of contaminants, all of the facilities associated with The Ship Ashore portion have been closed. Permanent mobile home units in Salmon Harbor remain open. Salmon Harbor operates a recreation hall, registration office, houses (4), and RV/mobile home park for temporary and permanent occupants.

XVR was acquired by the Tolowa Dee-ni' Nation (TDN) in November of 2016 and is currently tribal fee land. However, the Tribal nation has a direct connection with the site since time immemorial. This is the site of the Xaa-wan'-k'-wvt village, once the seat of the government and the principle economic village for the Tolowa Dee-ni' of NW California and SW Oregon. Xaa-wan'-k'wvt is of extreme cultural importance to the TDN and is located adjacent to the current day TDN Reservation (formerly known as the Smith River Rancheria). It lies directly on the Smith River estuary, a salmon stronghold for Chinook salmon, steelhead, and endangered Coho salmon; with views of the Pacific Ocean. The land provides critical elk habitat, as well as recreational and cultural lifeway opportunities for Tolowa Dee-ni' and Del Norte County citizens and visitors.

The TDN has acquired this property because of the cultural, political and historical importance it holds to the TDN and community. As the TDN re-visions community and economic development to enhance the Reservation and surrounding lands, XVR is at the epicenter of that effort. With the goal of creating a healthy commercial and cultural space, redeveloping the XVR South RV Park site provides opportunities for community healing, cultural revitalization, community development, educational, recreational and economic opportunities to the TDN and the surrounding region.

IV.E.1.a.ii Description of the Brownfield Site(s) (5 pts.): The project brownfield site is the Xaa-wan'-k'wvt South RV Park (site), which is located within the larger XVR target area (see Attachment A). The site is 11.42 acres. Prior to purchase, this site had commercial and recreational uses, along with associated administrative and maintenance facilities, including a RV park / resort, which included approximately 200 RV sites, a recreation hall, a maintenance yard, a registration office and restrooms/facilities. The focus of the proposed project are the recreation hall, maintenance yard, and registration office. The South RV Park is currently closed for operation, due to hazards.

The following Recognized Environmental Conditions (RECs) were identified during the Brownfields Assessment:

Summary of REC's Present at XVR South RV Park
(Weston Solutions Inc., Analysis of Brownfields Cleanup Alternatives, 2018)

Assessment Area	Contaminated Building Materials	Soil Sample Depth	Soil Contaminants of Concern
Ship Ashore Registration Office	LBP, ACM	Surface	N/A
XVR (South Park) Recreation Hall	LBP, ACM	Surface	N/A
Maintenance Yard and Outbuildings	LBP, ACM, stored ACM building materials	Surface	Cadmium, Asbestos, ACM debris piles

ACM = asbestos-containing materials; LBP = lead-based paint; PCBs = polychlorinated biphenyls

The XVR South RV Park is located directly on the Smith River Estuary, near the mouth to the Pacific Ocean. This is an area frequented by Tribal citizens for subsistence fishing and other cultural uses, as well as by the larger community for fishing and recreational purposes. The Smith River is a listed Wild and Scenic River and has the federal Endangered Species Act-listed Coho salmon and tidewater goby. The Pacific Ocean just north of the Smith River mouth is designated as a State Marine Protected Area with recognized tribal take for TDN citizens. Elk also frequent and feed

on the XVR property, and are another species harvested by Tribal citizens and other residents alike. The Tribe is currently engaged in an ongoing monitoring project of the elk herds for population size, health, and preferred land use. This monitoring is being done collaboratively, under a Memorandum of Understanding (MOU) with the California Department of Fish & Wildlife (CDFW).

IV.E.1.b Revitalization of the Target Area (12 pts.)

IV.E.1.b.i Redevelopment Strategy and Alignment with Revitalization Plans (7 pts.): The XVR Site - Eco-Resort Master Plan (see Attachment B) (Jones and Jones, TDN Land Use Plan, 2018) outlines the vision for revitalization of the XVR South RV Park and surrounding area. This redevelopment site plan was developed by TDN, the tribal community, and consultants in 2017-2018, as part of a larger TDN Land Use Plan. The process involved extensive community input through tools, such as surveys, charrettes, and open discussion meetings. Serious consideration was also given to historical, economic, cultural and environmental factors, including adaptation for future climate change. Participants engaged to inform the vision for XVR included: TDN Tribal Council and staff, Tribal Committees, Tribal citizens, XVR residents, the broader Smith River community and businesses, and federal and state agencies as appropriate (e.g. U.S. Environmental Protection Agency, State Coastal Commission and State Water Board). The TDN Land Use Plan provides a consensus-based plan for the redevelopment and revitalization of the XVR South RV Park and considers cultural, political, economic, environmental and recreational benefits to improve the health and welfare of the community. Intended reuse includes cultural and habitat restoration, along with economic, recreational and commercial uses.

The redevelopment of this site includes the procurement of a licensed Abatement Contractor to implement the XVR South RV Park Clean-up Plan. Mitigation actions will consist of complete removal and appropriate disposal of hazardous and contaminated building materials (LBP and ACM), debris piles (ACM) and contaminated soil (Cadmium and asbestos). Care will be taken to not disturb asphalt and/or concrete from the Ship Ashore Registration Office and XVR Recreational Hall buildings during removal activities, as these materials may require asbestos abatement and/or hazardous waste handling. In addition, Maintenance Yard and Outbuildings, friable ACM pipe lengths and fittings from within the main buildings and sheds will be removed.

Contaminants of concern are lead based paint, asbestos and cadmium. Areas of concern include the Ship Ashore Registration Office, the XVR Recreational Hall and the Maintenance Yard and Outbuildings. Following clean-up efforts the XVR Recreational Hall will be renovated to meet the intended reuses of the site. Renovations will include the updating of the structures to perform associated administrative duties for the site as well as provide space for direct services to Tribal citizens, community members and visitors alike. The Maintenance Yard will be cleaned-up and all existing debris, structures and contaminated soil removed. Existing utilities and roads infrastructure will be used in redevelopment wherever possible, although modifications will be made to meet design criteria. It is known that portions of the existing electrical, water and wastewater transmission lines need to be replaced due to poor maintenance. The TDN is pursuing replacing the electrical lines over the coming year. Additionally, the wastewater lagoons that treat all septic from XVR will need to be addressed. The TDN received A California State Water Resources Control Board Proposition 1 Planning Grant to redesign the wastewater system, which will be tied into the TDN's centralized wastewater treatment plant and system. Preference will be given to the use of green mitigation approaches to accomplish intended reuses of the site.

As noted in the ABCA and EPA's Strategic Plan, the proposed redevelopment will result in the following health and environmental impacts:

- waste production and use of materials will be minimized
- reduction of pollutants and impacts to water quality and water resources
- reduction of air emissions and greenhouse gas production
- conservation of natural resources and energy
- restoration of greenspace, including removing invasive species/planting native species
- reduction of human exposure to hazardous contaminants (lead, asbestos and cadmium) reported to distress human health, as described elsewhere.

IV.E.1.b.ii Outcomes and Benefits of Redevelopment Strategy (5 pts.): The TDN has acquired this property because of the cultural, political and historic importance it holds to the TDN and community. As the TDN re-visions community and economic development to enhance the Reservation and surrounding lands, XVR is at the epicenter of that effort.

Redeveloping this site provides an opportunity for community healing, cultural revitalization, community development, and economic opportunity to the TDN and surrounding local region. Reconnecting to this place of such cultural significance can translate to enhance social wellbeing and enhanced cultural identity, which can lead to improve health and wellbeing outcomes for individuals, families, and the Tribe. Communities within the target area will be positively impacted by clean-up activities. This area of relative poverty and blight is generally bypassed by tourist traveling through the region, with few RVs stopping to enjoy the area. With cleanup and redevelopment the site can be restored and serve as a focal point of economic and recreational activity for the surrounding region. The redevelopment of the site will result in 11.42 acres of revitalized parkland and include ~7 acres of greenway, 60-70 RV sites, 20-30 tent sites, a registration office and recreational hall and facilities. The site location increases access to the land for Tribal citizens to practice traditional fishing and harvesting, as well as other cultural lifeways. Post clean-up the Recreational Hall will serve as a much needed venue for Tribal and community events, such as emergency preparedness trainings, annual youth language camp, other youth activities, and community and family services classes to enhance healthy lifestyles. This also provides an opportunity to generate revenue as a rental venue to the greater community for events. For over 30+ years, XVR was used for the Rowdy Creek Fish Hatchery Annual Steelhead Derby. This is the primary fundraiser and source of income for the non-profit Rowdy Creek Fish Hatchery, the last private hatchery in California. The Revitalization plan intends to restore these activities and opportunities as uses of the land to promote the wellbeing of the entire community.

Brownfields redevelopment will contribute to broader environmental preservation and habitat restoration. Redevelopment is a necessity to address the lack of economic endeavors in the area and will increase eco-tourism, revenue and potentially jobs to the low income population. Developable land is scarce due to most of the area being private farm lands, and topographical constraints such as the ocean and the mountains limit regional infrastructure to narrow corridors. Preservation of the natural environment is essential to protect Smith River's unique fauna and flora. The site is directly on the estuary which is important habitat to ESA listed species such as Coho salmon and tidewater goby. Successful clean-up of the site will eliminate a major barrier in the redevelopment of the site and lower the risk to potential developers and the general public. Upon project completion the municipal tax base and local property values will increase, providing economic security for existing homeowners. It will likely stimulate more development interest in the target and surrounding area, creating an increase in new jobs, allow for an increase in both investment opportunities and sales tax revenue. When implemented effectively, green and sustainable remediation practices enhance the environmental benefits offered by federal cleanup and redevelopment programs, such as the EPA Brownfields Program. The Tribe intends to apply the principles governing green and sustainable remediation for EPA cleanup programs, outlined in the EPA's *Principles for Greener Cleanups* (EPA, 2009), and seeks to "optimize environmental performance and implement protective cleanups that are *greener* by increasing our understanding of the environmental footprint and, when appropriate, taking steps to minimize that footprint."

IV.E.1.c Strategy for Leveraging Resources (10 pts.)

IV.E.1.c.i Resources Needed for Site Reuse (7 pts.): The TDN is eligible for federal, state and foundation funding and has a successful track record of securing and managing competitive grants. The annual budget of the TDN is ~$10m, of which ~60% is from grants. Along with those funds that have already been leveraged towards redevelopment, cleaning up this site will further stimulate the opportunity for additional funds to be secured for redevelopment.

Already Secured/Completed

-- U.S. EPA, Targeted Brownfields Assessment Technical Assistance - ~$100,000

Technical assistance provided by Region IX to complete Phase I and II, and ABCA for project.

-- California State Water Resources Control Board Proposition 1 Planning Grant - $500,000

To complete design, environmental compliance, site investigation, and identify preferred organizational structure(s) for utilities operations for the existing wastewater system at XVR.

-- Tribal General Funds - $57,000

To complete assessment and improvements of water and wastewater systems; recreational hall; surveying; and disposal of non-hazardous items in preparation for Phase II assessment.

Additional Funds Proposed/Possible to Pursue for Redevelopment

-- California State Water Resources Control Board Proposition 1 Implementation grant – estimated to be $6-8,000,000+

To implement preferred design for addressing wastewater needs at XVR; eliminate existing lagoon ponds and connect to the Tribe's Howonquet Wastewater Treatment System and Plant.
-- U.S. HUD, Indian Community Development Block Grant - ~$1,000,000
Can be used for housing, community facilities, and economic development opportunities benefiting low-income Tribes and Tribal communities.
-- U.S. Department of Energy, Tribal Energy Development – varies up to million(s)
Can be used for energy studies, planning, and development. The TDN is very interested in solar installation potential to serve XVR.

IV.E.1.c.ii Use of Existing Infrastructure (3 pts.): Existing utilities and roads infrastructure will be used in redevelopment wherever possible, although modifications will be made to meet design criteria. Portions of the existing electrical, water and wastewater transmission lines need to be replaced due to poor maintenance. The TDN is pursuing replacing the electrical lines over the coming year. Additionally, the wastewater lagoons that treat all septic from XVR will need to be addressed. The TDN received A California State Water Resources Control Board Proposition 1 Planning Grant to redesign the wastewater system, which will be tied into the TDN's centralized wastewater treatment plant.

IV.E.2 Community Need and Community Engagement (20 pts.)

IV.E.2.a Community Need (12 pts. total)

IV.E.2.a.i The Community's Need for Funding (3 pts.): The TDN Reservation and broader Smith River community, including XVR, is located on the remote coast of far NW California. The closest large cities (>500,000 residents) are 6 hours north (Portland, OR) or 7 hours south (San Francisco, CA). The County is sparsely populated, with only 27 persons/square mile. The TDN currently has 1,771 Tribal citizens and the community of Smith River has a population of 3,351. Nearly 80% of all land in Del Norte County is owned by the federal or state government, predominately in the form of U.S. Forest Service, National Park Service, and State Park lands. The primary employer in the County is Pelican Bay State Prison, which is the only super-max state prison in California. The agricultural industry also is a major employer, which provides for a high number of low income employment opportunities. Tribes, including the TDN, Elk Valley Rancheria and the Yurok Tribe are also major employers. In decades past, the commercial fishing and timber industry were dominate in Del Norte County, however both industries have diminished significantly decreasing employment opportunities and increasing unemployment rates. As demonstrated in the table below in Section 4.e.2.a.ii.3, poverty and unemployment levels are higher than the State and Nation, and median income for the County is much lower. Blight on and near the Reservation is also a concern. XVR itself is a blight concern, which the TDN is trying to address as well as contaminants. With ~60% of the TDN budget being grant-generated, the Tribe does not have the financial resources to invest in the cleanup of XVR. Furthermore, XVR is not a viable economic opportunity that can provide reinvestment revenue until cleanup is completed.

IV.E.2.a.ii Threats to Sensitive Populations (9 pts. total)

IV.E.2.a.ii.1 Health or Welfare of Sensitive Populations (3 pts.): As demonstrated in the Table below, target population experiences higher rates of asthma and obesity as compared to the state and national rates. Mortalities from mental and substance abuse as well as diabetes occur at a higher rate in Del Norte County than state and national rates.[1]

Condition	**AI/AN[2]**	**Del Norte County**		**Statewide**		**National**	
asthma rates		< 18yrs	≥ 18yrs	< 18yrs	≥ 18yrs	< 18yrs	≥ 18yrs
	14.3%	11%	28%	9.4%	8.1%	8.3%	8.3%
mental and substance abuse mortality (rates/ 100,000 population)	n/a	female	male	female	male	female	male
		16.6	21.3	6.6	16.2	8.2	18.7
diabetes, urogenital, blood and endocrine disease mortality (rates/ 100,000 population)	n/a	female	male	female	male	female	male
		52.4	66.5	41.2	54.1	49.6	63.8

[1] (http://healthdata.org 2014)
[2] AI/AN – American Indian and Alaska Native.

obesity rates	< 18yrs	female	male	female	male	female	male
	39%	40.2%	37%	32.9%	29.4%	36.1%	33.8%

IV.E.2.a.ii.2 Greater Than Normal Incidence of Disease and Adverse Health Conditions (3 pts.): Asthma, tracheal, bronchus and lung cancer rates are significantly higher among both American Indians and Del Norte County Residents, children and adults, than state and national rates.[3]

	AI/AN	**Del Norte County**		**Statewide**		**National**	
current asthma rates	14.3%	< 18yrs	≥ 18yrs	< 18yrs	≥ 18yrs	< 18yrs	≥ 18yrs
		11%	28%	9.4%	8.1%	8.3%	8.3%
tracheal, bronchus and lung cancer (rates per 100,000 population)	n/a	female	male	female	male	female	male
		61	83.9	32.5	45.5	43.8	67.6

IV.E.2.a.ii.3 Economically Impoverished/Disproportionately Impacted Populations (3 pts.): Please refer to Sections IV.E.2.a.i for a more detailed description. Demographic data to demonstrate the project is in an economically impoverished/disproportionately impact population is in the following Table.

Census Tract 2.02, Del Norte County, includes the project area, which is adjacent to and benefits the TDN Reservation[4]					
	Reservation	**Census Tract 2.02**	**County**	**Statewide**	**National**
Population	145	3,351	27,880	38,421,464	316,127,513
Unemployment	8%	3.7%	5%	6.2%	5.2%
Poverty Rate (individuals)	19.6%	21.2%	21.8%	16.3%	15.5%
Percent AI/AN Alone or in Comb.	73.8%	8.4%	10.9%	1.9%	1.7%
Median Household Income	$53,125	$42,610	$40.847	$61,818	$53,889

IV.E.2.b Community Engagement (8 pts. total)

IV.E.2.b.i Community Involvement (5 pts.): The TDN community and other key stakeholders will be involved in the clean-up and redevelopment of the site. The TDN community includes Tribal Council, Tribal staff, Tribal Committees (XVR Planning Committee, Natural Resources and Harvesting Committee and Culture Committee), and Tribal citizens. Other key stakeholders includes current Xaa-wan'-k'wvt Village and Restore (XVR) residents, as well as Smith River community residents and business owners. Contact directly by phone and email will occur to connect with and organize those discussions. Community meetings will also be convened as necessary to report on project progress and facilitate input on the clean-up efforts. Information about those meetings will be shared through the Tribal newsletter, Tribal webpage, flyers, and social media. Tribal Council, staff and Committees (e.g. XVR Planning Committee, Culture Committee) will be engaged through routine meetings, which are planned through email or are added to an Agenda for inclusion in standing meetings. The redevelopment of the XVR South RV Park is part of a larger XVR Site - Eco-Resort Master Plan included in the TDN Land Use Plan.

The TDN has a long history of engaging the community, which is accomplished through meetings, newsletters (Tribal), public media (two local newspapers and local radio station), social media (Facebook and website), and general word of mouth. Information supplied is usually an abstract or summary of the work being done and the ability of the community to ask questions or give input. Efforts will be publicized and the general public will be able to provide feedback.

The TDN Natural Resources Department is the Tribal Environmental Authority that will oversee the clean-up project. The Natural Resources Department will partner with multiple Government Agencies during the cleanup and redevelopment processes. Examples of agencies and potential project interaction include:

[3] CDC, 2014 / CHIS 2013 and 2014 / Building Healthy Communities Del Norte County Health Profile, 2011/ http://healthdata.org 2014.
[4] Data are from the 2015 American Community Survey 5-Year Estimates available on American FactFinder:https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml).

List of Project Partners		
Partner Name	**Point of Contact**	**Role**
U.S. EPA, Region IX Brownfields	Erik Byous byous.eric@epa.gov (415) 972-3531	TA for brownfields will be provided by Region IX
Elk Valley Rancheria	Crista Stewart cstewart@elk-valley.com (707)465-2620	TA from neighboring Tribe that completed brownfields projects
Tribal Heritage Preservation Office/SHPO	Amanda O'Connell (707) 487-9255 amanda.oconnell@tolowa.com	TA and monitor for cultural and historic places.
CA Coastal Commission	Bob Merrill bob.merrill@coastal.ca.gov (707)826-8950	Consultation and coordination on redevelopment in Coastal Zone
CA State Lands Commission	Jennifer Mattox (916) 574-0748 jennifer.mattox@slc.ca.gov	Communication and coordination for potential impacts to tidelands

IV.E.2.b.ii Incorporating Community Input (3 pts.): As stated previously the TDN has a long history of public communication and is committed to continue the use of these same avenues for the communication in this project. TDN's plans for communicating the progress of the specific project will include:

- Monthly XVR Planning Committee meetings will assist in garnering public input, overseeing project progress and ensuring adherence to the redevelopment strategies.
- Open stakeholder meetings with appropriate officials, interested public participants, and project partners.
- Updates, notifications and continued community engagement solicitation will be printed in the monthly Tribal newsletter, posted on the Tribal Website/Facebook page, and as necessary in communal areas throughout the community.
- Tribal website will be kept up-to-date with the latest information on the progress.
- A single point of contact at TDN will support consistent engagement with the public.
- Monthly reports to Tribal Council and citizens in open Council meetings.
- Annual General Membership Meeting held in March to garner more input and share progress.

IV.E.3 Task Descriptions, Cost Estimates, and Measuring Progress (35 pts.)

IV.E.3.a Proposed Cleanup Plan (8 pts.): The clean-up objective is to mitigate potential exposure of the identified contaminants to levels protective of human health in a commercial/industrial reuse scenario for the XVR South RV Park.

The following Recognized Environmental Conditions (RECs) are present and require mitigation in order to redevelop the XVR South RV Park, (Weston Solutions Inc., Analysis of Brownfields Cleanup Alternatives, 2018):

- ACM are present in all building materials in all structures, as well as discarded ACM in debris piles in the maintenance area and ACM stored in the shed in the east side of maintenance yard.
- LBP is at concentrations that exceed the 5,000 milligrams per kilogram (mg/kg) screening level in all structures.
- Cadmium is at a concentration of 21 mg/kg in one surface soil area in the maintenance yard, which exceeds the DTSC Screening Level (DTSC-SL) of 7.3 mg/kg for commercial/industrial soils.
- Arsenic is in surface and shallow subsurface soil from the Maintenance Yard, with concentrations ranging from 2.5 mg/kg to 6.4 mg/kg. A USGS soil survey study of regional background metal concentrations was reviewed; average arsenic background concentration in soil near Smith River is 6.88 mg/kg. Therefore, because arsenic concentrations exceeding the screening level are within the range of background concentrations they are not considered a REC that needs to be addressed.

Assessment Area	Contaminated Building Materials	Soil Sample Depth	Soil Contaminants of Concern
Ship Ashore Registration Office	LBP, ACM	Surface	N/A
XVR (South Park) Recreation Hall	LBP, ACM	Surface	N/A
Maintenance Yard and	LBP, ACM, stored	Surface	Cadmium, Asbestos,

Outbuildings	ACM building materials		ACM debris piles

A Certified Asbestos Abatement contractor and LBP removal contractor(s) will be procured for clean-up implementation, to comply with applicable regulations for protection of worker and public health. In the mitigation actions, where contaminants will be left in place, Institutional Controls (ICs) will be implemented to ensure continued protection to human health and the environment and that areas are used only for permitted purposes unless additional remedial work is performed. The following cleanup methods were selected to mitigate the potential impacts from CBM and contaminated soil.

Complete hazardous building materials abatement will remove the threat of accidental ingestion and/or dermal contact to current and future Site users. The effectiveness of this method is ranked high. This action consists of the removal of all building materials containing ACM and LPB from all structures, prior to demolition/renovation actions. Following clean-up efforts the XVR Recreational Hall will be renovated and the Ship Ashore Registration Office and Maintenance Yard and Outbuildings will be demolished. Residual contaminants will be removed from areas of the structures where these contaminants are currently suspected or have been identified. Materials will be properly sorted and packaged for off-site disposal in an appropriately licensed landfill. Should asphalt and/or concrete from the Ship Ashore Registration Office and XVR Recreational Hall buildings be mechanically disturbed during removal activities, materials may require asbestos abatement and/or hazardous waste handling. For the Maintenance Yard and Outbuildings, friable ACM pipe lengths and fittings from within the main buildings and sheds will be removed.

In the Maintenance Yard targeted excavation of contaminated soil, removal and disposal of ACM and debris piles, confirmation sampling, and off-Site disposal with IC's will mitigate the threat of accidental ingestion and/or dermal contact with lead, cadmium, and asbestos to current and future site users. The effectiveness of these actions is ranked moderately high. This mitigation consists of identification and removal of ACM debris piles on the Site. Soils with exceedances in California Department of Toxic Substances Control Screening Levels (DTSC-SLs) for commercial/industrial soils will be removed. Because the Phase II soil investigation for asbestos was limited in scope, additional characterization of soils adjacent to ACM debris piles will be included as part of the asbestos abatement activities. If additional soil characterization determines that asbestos is present in adjacent soils, the removal of ACM debris piles will include an additional 6 inches (15-foot by 15- foot area) of the surface soil beneath the ACM debris piles. This will involve excavating contaminated soils above commercial/industrial Site Action Levels to an estimated maximum depth of 1 foot (approximately 225 sf). Excavated soil will be characterized and profiled for disposal (two waste characterization samples). After excavation, four 4-point composite samples per 20-foot by 20-foot grid will be collected for analysis of metals relevant for each area (i.e., lead and cadmium, respectively). The excavated soil will be stockpiled on-site, pending laboratory analysis for waste characterization. Although preliminary waste characterization indicates that the soil will be a California hazardous waste, further testing of stockpiled soil may demonstrate that the soil could be classified as nonhazardous. The excavation areas will be backfilled and compacted with clean material appropriate for planned use.

All contaminated waste and soil will be treated as California hazardous waste and transported off-site for disposal at appropriately licensed treatment/disposal facilities and in accordance with applicable state regulations. Safe work practices and traffic control measures will be utilized during the disposal of hazardous waste. Prior to leaving the site visible soil will be removed from tires and other equipment. Appropriate manifest records will be maintained for transportation and disposal.

IV.E.3.b Description of Tasks and Activities (12 pts.):

Task 1-Contractor Procurement: a licensed abatement contractor will be procured within the first three (3) months of grant award through a competitive process. The RFP will be developed and flown for at least 30 days. RFPs are posted to the TDN website, as well as emailed directly to a list of potential contractors. The XVR Planning Committee will review and score the proposals according: appropriate licensing, good standing (not disbarred or suspended), experience, locality of company, costs, timeline, etc. If deemed appropriate, follow up interviews will be convened. The contractor will be recommended to the Tribal Council for approval. The Grants and Contracts Manager will then develop the contract to be approved and signed by Tribal Council. All federal and Tribal procurement requirements will be met and the Tribal Employment Rights Ordinance will be applied. Deliverable/Output: Contract secured.

Task 2-Site Clean-up: as described previously mitigation actions to clean-up site for reuse will be initiated within (6) six months of the grant award and concluded by month (18) eighteen. A licensed abatement contractor will implement the

proposed clean-up actions. The contractor will be responsible for strict adherence to applicable regulations, the redevelopment strategies and goals of the site, working with THPO to ensure a TDN cultural monitor is present; and work with EPA to confirm site cleanup to appropriate standards. The contractor will report to the Natural Resources Director and is responsible for coordination with TDN staff. Deliverable/Output: Cleanup of ~11.42 acres and 7 structures.

Task 3-Project progress tracking and reporting will be implemented throughout the entire (2) two-year project: TDN staff and XVR Planning Committee will be responsible for implementing regular communication regarding the project progress including oversite of public announcements, public comment, recommendations and monthly reports to the Tribal Council. Deliverable/Output: 12 Tribal Council reports and 18 XVR Planning meeting agendas.

Task 4-Implementation of Institutional Controls (IC's): to ensure continued protection to human health and the environment and that areas are used only for permitted purposes. The TDN will implement IC's ensuring the site use is consistent with intended uses. In the event of a change of ownership the TDN will disclose the site history. The TDN will monitor the site regularly to ensure compliance with the IC's. Deliverable/Output: Appropriate level of protection to human health and environment; use for permitted purposes.

Task 5-Notification of completed clean-up project: The Natural Resources Director will generate a final notification/1 page fact sheet for the community upon successful completion. The notification will be publically posted within (3) three months of completion. Deliverable/Output: public notification/one-page fact sheet posted.

IV.E.3.c Cost Estimates and Outputs (10 pts.)

Budget Categories		**Project Tasks ($)**						
		Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Total
Direct Costs	Personnel	10,296	6,864	20,592	20,592	10,296		68,640
	Fringe Benefits	3,089	2,059	6,178	6,178	3,088		20,592
	Travel							0
	Equipment							0
	Supplies		768					768
	Contractual		495,000					495,000
	Other (specify)		10,000					10,000
Total Direct Costs		13,385	514,691	26,770	26,770	13,384	0	595,000
Indirect Costs		669	985	1,338	1,338	669		5,000
Total Federal Funding (Not to exceed $500,000)		14,054	415,676	28,108	28,108	14,054	0	500,000
Cost Share(20% of requested federal funds)			100,000					100,000
Total Budget (Total Direct Costs + Indirect Costs + Cost Share)		14,054	515,676	28,108	28,108	14,054	0	600,000

Personnel Costs: Project Manager ($30/hr @ 1040 hrs), Grants & Contracts ($30/hr @ 416 hrs) XVR Manager ($30/hr @ 832 hrs) = $68,640
Fringe Costs: 30% on personnel x $68,640 = $20,592 Fringe includes insurance, FICA, workman’s comp, unemployment, 401K.
Supplies: Protective Personal Gear (e.g. gloves, eyewear) at $768
Contractual: Construction with Construction Manager ($495,000), based on ABCA costs and typical manager costs.
Other: Environmental Compliance/Cultural Monitoring at $50/hr @ 200 hrs = $10,000

IV.E.3.d Measuring Environmental Results (5 pts.): The XVR Planning Committee which includes TDN's Natural Resources Director, Public Works and Facilities Manager, Planning Director, XVR Manager, Tribal Executive Director, and other TDN Directors/Managers, as pertinent through regular monthly meetings will ensure communication, coordination, and tracking of the clean-up project and adherence to the redevelopment goals of the site. Additionally, the

Natural Resources Director will report monthly to the Tribal Council on the project status. An Implementation Schedule will be requested as part of the proposal submission by the Contractor. This schedule will be used to track the progress of the Contractor.

Results Expected (Outputs)	**Benefits Expected (Outcomes)**
-1 contract for the clean-up of the XVR South RV Park	- Highly qualified Contractor to implement cleanup plan - Oversight and adherence to all applicable regulations
-12 Tribal Council reports -18 XVR Planning Committee Meetings	- Progress tracked - Council and Tribal citizens and community informed -Facilitation of community engagement
-1 clean-up notification	-Community notification of completion
-Clean-up of ~11.42 acres	-Restore ~11.42 acres for cultural/recreational/commercial -Increase in property value -Increase in revenue for facilities rental and associated use fees -Revitalize revenue potential:~60-70 RV & ~20 tent sites -Renovation of infrastructure: water, sewer and electrical -Opportunities of intended uses by tribal citizens and community
-Clean-up of XVR Recreational Hall	-Renovation of recreation hall for Tribal citizens and visitors commons area, outdoor area, shower and facilities; revenue potential from rent
-Clean-up of Ship Ashore Registration Office	-Renovation of structure for a small registration office with conveniences
-Clean-up of maintenance yard and (5) outbuildings	-Restoration of ~ 7 acres of greenway for the site -Water improvements and restoration of native plants
-Institutional Controls	-Ensure continued protection to human health and environment through decreased/eliminated contaminants exposure -Ensure appropriate/permitted uses align w/ TDN Land Use Plan

IV.E.4 Programmatic Capability and Past Performance (15 pts.)

IV.E.4.a Programmatic Capability (9 pts.)

IV.E.4.a.i Organizational Structure (5 pts.): The TDN has 30+ years of experience in managing budgets for numerous projects across a wide range of program areas successfully. The total Tribal budget is ~$10 million a year. The following inventory provides a partial insight into those capabilities with annual grant budgets in excess of $5 million. The Tribe has a demonstrated capacity to administer a variety of grants, contracts and related project with complex requirements as established by federal and state regulation. Primary among these is the U.S. Department of Health and Human Services Direct Programs, U.S. Department of Interior Direct Programs, U.S. Department of Housing and Urban Development Direct Programs, U.S. Department Pass-through Department of Health and Human Services, U.S. Environmental Protection Agency, and the State of California.

The Tribe's Operating Policies for Financial Management and separate Procurement Policy provide procedures and standards regarding fiscal management, including procurement and contract and grants management that fully meet federal requirements (e.g. 2 CFR Part 200) and rely upon Generally Accepted Accounting Principles. These comprehensive fiscal management procedures ensure the proper management and spending of federal and state grants and contracts, as well as tribal funds, with strict processes and checks/balances. The Tribe has a clear separation of duties for fiscal management to provide the necessary internal controls. The Fiscal Department includes staff who has a combined 105 years of experience, of which 28 combined years have been with the TDN. The Tribe does not hire Contractors that are not licensed in the State of California and do not hire any Contractors that are "debarred" or "suspended". The TDN has a third party, licensed Accountant conduct annual audits for all Tribal accounts and retains all records according to federal requirements. The Chief Financial Officer ensures total compliance, consistently turns in all financial reports (e.g. SF 425) on time to federal funding agencies, and makes monthly financial reports to the Tribal Council. The Tribe's audit year is January 1 – December 31 and we have an up-to-date and current A-133 audit submitted to the Federal Audit Clearinghouse. For the past 5 years, TDN has had no adverse audit findings.

The project will be managed out of the TDN Natural Resources Department by the Director. The Natural Resources Director, Megan Van Pelt, has a MA and has ~15 years' experience in managing grant-funded projects. A licensed Abatement Contractor will be procured to complete the hazardous waste abatement including removal and disposal. Only highly qualified Contractors will be included in the review process, which will be a competitive competition that follows TDN procurement requirements (see previous descriptions).

IV.E.4.a.ii Acquiring Additional Resources (4 pts.): The Tribe has a Procurement Policy that meets federal requirements to acquire additional expertise and resources (e.g. contractors) required to successfully complete the project. For a more detailed discussion, please see Section IV.E.4.a.i.

IV.E.4.b Past Performance and Accomplishments (6 pts.)
IV.E.4.b.ii Has Not Received an EPA Brownfields Grant but has Received Other Assistance (6 pts.)
IV.E.4.b.ii.1 Purpose and Accomplishments (3 pts.): In the last year, the Tribe has managed several project that are similar in size, scope, and relevance to the proposed project. Three examples are:

Project 1: EPA Performance Partnership Grant (see Attachment C)
Awarding Agency: U.S. EPA (Clean Water Act 106 & 319, General Assistance Program)
Amount of Funding Received: ~$1,143,450
Purpose: Manage a water quality program and build capacity towards developing EPA-eligible programs over a 5 year period.
Accomplishments: implemented water program (5 years of data at 6 sites) and built capacity in other EPA-eligible programs (e.g. solid waste/recycling, air, brownfields)
Project 2:Low Impact Development and Stormwater Outfall Improvements(see Attachment D)
Awarding Agency: California Ocean Protection Council, Proposition 1
Amount of Funding Received: $1,071,400
Purpose: implement LID (e.g. rain gardens, infiltration units) around Tribal enterprises and replace stormwater outfall to improve water quality in Lopez Creek and ocean
Accomplishments: 3 raingardens, bioswale, 2 infiltration units, and replace stormwater outfall
Project 3: Howonquet Wastewater Treatment Plant Improvements (see Attachment E)
Awarding Agency: U.S. HUD, Indian Community Development Block Grant
Amount of Funding Received: $605,000
Purpose: improvements to treatment plant to increase efficiency and reduce operational costs
Accomplishments: installed dewatering unit and filtration

IV.E.4.b.ii.2 Compliance with Grant Requirements (3 pts.)
Project 1: Activities monitored monthly according to approved workplans; adjustments to workplans and budgets completed in consultation and then approval from EPA grants manager; all procurement requirements followed; quarterly and annual reporting (narrative and SF425) completed on time; and all terms and conditions were otherwise met under the grant agreement. Grant closed out.
Project 2: Activities monitored monthly according to approved workplans; bi-weekly Project Team meetings; any change orders or request for information were formally documented and approved by all parties; all invoices for construction were verified and inspections completed by Engineer/Project Manager and then by Tribal Project Manager; all procurement requirements followed; adjustments to workplans and budgets completed in consultation and then approval from OPC grants manager; quarterly reporting (narrative and invoice) submitted within a reasonable time; and all terms and conditions were otherwise met under the grant agreement. Grant in close out process now.
Project 3: Activities monitored monthly according to approved Implementation Schedule; regular Project Team meetings; any change orders or request for information were formally documented and approved by all parties; all invoices for construction were verified and inspections completed by Public Works & Facilities Manager and then by Tribal Project Manager; all procurement requirements followed; adjustments to workplans and budgets completed in consultation and then approval from HUD grants manager; quarterly reporting (narrative and invoice) submitted on time; and all terms and conditions were otherwise met under the grant agreement. Grant closed out.

EPA Brownfields Clean-up - XVR South R.V. Park Phase 1:

III.B. Threshold Criteria for Cleanup Grants/list of Appendices if applicable

III.B.1 Applicant Eligibility

The Tolowa Dee-ni' Nation is a federally recognized Tribe – (Indian entities recognized to receive services from the Bureau of Indian Affairs- Federal Register Vol 83, Issue 20. January 30, 2018) and is eligible for Brownfields funding.

III.B.2 Previously Awarded Cleanup Grants

The Xaa-wan'-k'wvt Village and Resort South R.V. Park (XVR South R.V. Park / Site) has not previously received funding from EPA Brownfields Clean-up Grant.

III.B.3 Site Ownership

See Attachment G, Ship Ashore Recorded Grant Deed. The Tolowa Dee-ni' Nation is the sole owner of the Site.

III.B.4 Basic Site Information

Name: Xaa-wan-k'wvt Village and Resort, South R.V. Park
Address: 12370 US-101 Smith River, Del Norte County, California 95567
Current Owner: The Tolowa Dee-ni' Nation
See Attachments A and B for maps.

III.B.5 Status and History of Contamination at the Site

The XVR South R.V. Park is contaminated by Hazardous Substances. The previous landowners operated the Site as the Ship Ashore an economic enterprise with commercial, recreational and residential uses for many decades, including an R.V. Park, Recreational Hall and Facilities and Maintenance Yard. The Site is currently closed for operation due to public safety and health concerns. Due to dilapidation, poor maintenance of facilities and historical uses of the Site, there are several know contaminants that require mitigation for the redevelopment of the site. The following table is a summary of the known contaminants and locations.

Summary of REC's Present at XVR South R.V. Park
(Weston Solutions Inc., Analysis of Brownfields Cleanup Alternatives, 2018)

Assessment Area	Contaminated Building Materials	Soil Sample Depth	Soil Contaminants of Concern
Ship Ashore Registration Office	LBP, ACM	Surface	N/A
XVR (South Park) Recreation Hall	LBP, ACM	Surface	N/A
Maintenance Yard and Outbuildings	LBP, ACM, stored ACM building materials	Surface	Cadmium, Asbestos, ACM debris piles

Notes:
ACM = asbestos-containing materials LBP = lead-based paint
PCBs = polychlorinated biphenyls
N/A = not applicable

III.B.6 Brownfields Site Definition
The Site is eligible for Brownfields funding per the definitions under CERCLA § 101(39).

- The Site is not listed or proposed for listing on the National Priorities List;
- The Site is not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA;
- The Site is not subject to the jurisdiction, custody, or control of the U.S. government.

III.B.7 Environmental Assessment Required for Cleanup Proposals
The U.S. Environmental Protection Agency (EPA), Region 9 tasked Weston Solutions, Inc., (WESTON®) to conduct an Analysis of Brownfields Cleanup Alternatives (ABCA) for the property located at 12370 US-101, and 200 N. Salmon Harbor Rd., in Smith River, Del Norte County, California (Site). This ABCA was prepared under U.S. Army Corps of Engineers (USACE) Contract W912P7-16-D-0001. WESTON performed fieldwork for a Phase II Targeted Brownfields Assessment (TBA) during the summer of 2018, the TBA was requested by the Tolowa Dee-ni' Nation and performed under contract with the USACE. As part of the TBA, WESTON conducted a Phase II Environmental Site Assessment to further assess Site conditions. Sampling was conducted on decision units to determine and inform alternatives that would meet the project goal to mitigate the identified contaminants and environmental conditions to levels appropriate for the intended site reuse.

III.B.8 Enforcement or Other Actions
Does Not Apply.

III.B.9 Sites Requiring a Property-Specific Determination
The Site does not require a Property-Specific Determination.

III.B.10 Threshold Criteria Related to CERCLA/Petroleum Liability
III.B.10.a Property Ownership Eligibility - Hazardous Substance Sites
III.B.10.a.i Exemptions to CERCLA Liability
III.B.10.a.i.1 Indian Tribes
The Tolowa Dee-ni' Nation is a federally recognized tribe and is exempt from CERCLA liability.

III.B.10.b Property Ownership Eligibility - Petroleum Sites
Does Not Apply.
III.B.10.b.i Information Required for a Petroleum Site Eligibility Determination
III.B.10.b.i.1 Current and Immediate Past Owners
Does Not Apply.
III.B.10.b.i.2 Acquisition of Site
Does Not Apply.
III.B.10.b.i.3 No Responsible Party for the Site
Does Not Apply.
III.B.10.b.i.4 Cleaned Up by a Person Not Potentially Liable
Does Not Apply.
III.B.10.b.i.5 Judgments, Orders, or Third Party Suits

Does Not Apply.

III.B.10.b.i.6 Subject to RCRA

Does Not Apply.

III.B.10.b.i.7 Financial Viability of Responsible Parties

Does Not Apply.

III.B.11 Cleanup Authority and Oversight Structure

III.B.11.a Cleanup Oversight

The TDN Natural Resources Department is the Tribal Environmental Authority that will oversee the brownfields Xaa-wan'-k'wvt Village and Resort South RV Park clean-up project. This Tribal Environmental Authority will take the lead on implementing the project. The Natural Resources Department will work collaboratively with the TDN Planning Department and the Tribal Heritage Preservation Office to ensure the project aligns with all environmental regulations. The Natural Resources Department will also collaborate with multiple Government Agencies during the assessment, cleanup and redevelopment processes. Examples of agencies and potential project interaction include:

• U.S. Bureau of Indian Affairs: Technical assistance regarding land management and potential redevelopment.

• U.S. Environmental Protection Agency: Technical assistance for brownfields will be provided by Region IX.

• Elk Valley Rancheria Environmental Program: General advice from neighboring Tribe that has successfully completed brownfields assessments and cleanups.

• TDN Tribal Heritage Preservation Office and State Historic Preservation Office: Guidance and technical assistance regarding protection of cultural and historic places.

• California Coastal Commission: Consultation and coordination, particularly when it comes to redevelopment as the project is in the Coastal Zone on fee land.

• U.S. National Oceanic and Atmospheric Administration: Communication to update them on project's potential benefits to estuary and listed species.

• California State Lands Commission: Communication and coordination for any potential impacts to tidelands during clean up and/or redevelopment

TDN will consult with EPA to ensure the cleanup is protective of human health and the environment. Procurement for the Construction Contractor will follow the Tribe's Procurement Policy, which meets 2 CFR Part 200 (see narrative for a more detailed description of procurement standards).

III.B.11.b Access to Adjacent Properties

The Tolowa Dee-ni' Nation owns the Site and has access necessary to perform all mitigation actions as required for the successful completion of the clean-up project.

III.B.12 Community Notification

III.B.12.a Draft Analysis of Brownfields Cleanup Alternatives

See Attachment H for ABCA Targeted Brownfields Assessment 2018. The U.S. Environmental Protection Agency (EPA), Region 9 tasked Weston Solutions, Inc.,(WESTON®) to conduct an Analysis of Brownfields Cleanup Alternatives (ABCA) for the property located at 12370 US-101, and 200 N. Salmon Harbor Rd., in Smith River, Del Norte County, California. This ABCA

was prepared under U.S. Army Corps of Engineers (USACE) Contract W912P7-16-D-0001. WESTON performed fieldwork for a Phase II Targeted Brownfields Assessment (TBA) during the summer of 2018. The TBA was requested by the Tolowa Dee-ni' Nation (TDN, the applicant) and performed under contract with the USACE. The purpose of the TBA was to characterize conditions at the Site because it is being considered for reuse. This ABCA report identifies and compares different cleanup scenarios to address contaminants identified during the Phase II Targeted Brownfields Assessment (TBA) building surveys and soil sampling. The cleanup scenarios were evaluated on effectiveness, implementability, and cost.

III.B.12.b Community Notification Ad
The TDN posted the community notification ad as customarily used to communicate to the target community(ies) no later than January 17, 2019. See Attachment I.

III.B.12.c Public Meeting
Comments received can be summarized according to the following themes:

- Glad to see the Tribe taking a lead in cleaning up the property. One comment specifically noted, "It's about time."
- Desire to re-open the South RV Park as soon as possible. Seven comments requested the park by opened by summer 2019.

Response to Comments occurred as an open dialog in the meeting. No comments required adjustments to the proposed project scope, except of the timeline, which cannot be reasonably met.

Generally speaking, the summary of the meeting included a presentation overview of the project scope, alternatives, and proposed grant proposal content. This occurred as part of the larger department presentation provided by the Natural Resources Department during the Open Council meeting on January 10th. Specific meeting notes may be provided during preaward. Council meeting minutes and sign-in sheets have not yet been finalized or approved for release by Tribal Council at time of grant submission. As described in the narrative, extensive input occurred in developing the project scope over the last year-plus. In addition, community engagement will continued to be facilitated an incorporated throughout the project.

III.B.12.d Submission of Community Notification Documents
See Attachment H and I, as well as previous description in two sections prior.

III.B.13 Statutory Cost Share
There is a 20% required non-federal match on the grant. The TDN accepts responsibility to provide that match in cash and/or in-kind, provided by Tribal General Funds.

III.B.13.a Meet Required Cost Share
The TDN has committed at least 20% of the requested amount (=$100,000) to the project from Tribal funds.

III.B.13.b Hardship Waiver
Not requested.

Attachment C

U.S. ENVIRONMENTAL PROTECTION AGENCY

Assistance Amendment

GRANT NUMBER (FAIN): 00T11214 **MODIFICATION NUMBER:** 5 **PROGRAM CODE:** BG	**DATE OF AWARD** 09/21/2017
TYPE OF ACTION Augmentation: Increase	**MAILING DATE** 09/28/2017
PAYMENT METHOD: ASAP	**ACH#** 90253

RECIPIENT TYPE:
Indian Tribe

Send Payment Request to:
Las Vegas Finance Center email: lvfc-grants@epa.gov

RECIPIENT:
Tolowa Dee-ni Nation
140 Rowdy Creek Road
Smith River, CA 95567
EIN: 68-0087275

PAYEE:
Tolowa Dee-ni Nation
140 Rowdy Creek Road
Smith River, CA 95567

PROJECT MANAGER	EPA PROJECT OFFICER	EPA GRANT SPECIALIST
Megan Van Pelt 140 Rowdy Creek Road Smith River, CA 95567 **E-Mail:** megan.vanpelt@tolowa.com **Phone:** 707-487-9255	Loretta Vanegas 75 Hawthorne Street, WTR-3-4 San Francisco, CA 94105 **E-Mail:** vanegas.loretta@epa.gov **Phone:** 415-972-3433	Darlene Fernandez Grants Management Section, EMD-6-1 **E-Mail:** fernandez.darlene@epa.gov **Phone:** 415-972-3664

PROJECT TITLE AND EXPLANATION OF CHANGES
PERFORMANCE PARTNERSHIP GRANT
The grantee's major activities include: water quality standards program implementation; conducting water quality monitoring and analysis; restoring a creek and developing stormwater management wetlands; attending environmental trainings and conferences; updating an EPA - Tribal Environmental Plan; and conducting outreach and education to tribal members. These funds support further development and administration of the Tribe's Water Pollution Control, Nonpoint Source Management and General Assistance Programs. This amendment provides additional federal funding in the amount of $199,700 and changes the budget/project period end date to 9/30/18.

BUDGET PERIOD	PROJECT PERIOD	TOTAL BUDGET PERIOD COST	TOTAL PROJECT PERIOD COST
10/01/2013 - 09/30/2018	10/01/2013 - 09/30/2018	$1,226,583.00	$1,226,583.00

NOTICE OF AWARD

Based on your Application dated 07/01/2017 including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA) hereby awards $199,700. EPA agrees to cost-share 93.22% of all approved budget period costs incurred, up to and not exceeding total federal funding of $1,143,450. Recipient's signature is not required on this agreement. The recipient demonstrates its commitment to carry out this award by either: 1) drawing down funds within 21 days after the EPA award or amendment mailing date; or 2) not filing a notice of disagreement with the award terms and conditions within 21 days after the EPA award or amendment mailing date. If the recipient disagrees with the terms and conditions specified in this award, the authorized representative of the recipient must furnish a notice of disagreement to the EPA Award Official within 21 days after the EPA award or amendment mailing date. In case of disagreement, and until the disagreement is resolved, the recipient should not draw down on the funds provided by this award/amendment, and any costs incurred by the recipient are at its own risk. This agreement is subject to applicable EPA regulatory and statutory provisions, all terms and conditions of this agreement and any attachments.

ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)	AWARD APPROVAL OFFICE
ORGANIZATION / ADDRESS	**ORGANIZATION / ADDRESS**
U.S. EPA, Region 9 - Grants Management Section, EMD 6-1 75 Hawthorne Street San Francisco, CA 94105	U.S. EPA, Region 9 Water Division, WTR-1 75 Hawthorne Street San Francisco, CA 94105

THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY

Digital signature applied by EPA Award Official Craig A. Wills - Grants Management Officer	**DATE** 09/21/2017

State of California Natural Resources Agency
California Ocean Protection Council
California Ocean Protection Trust Fund of 2006

AMENDMENT #2 TO GRANT AGREEMENT NO. P01-1-01

GRANTEE NAME: Tolowa Dee-ni' Nation

PROJECT TITLE: **Low Impact Development and Stormwater Outfall Improvement Project**

This amendment is hereby made and agreed upon by the State of California, ("State") acting through the Natural Resources Agency, on behalf of the Ocean Protection Council, and by the Tolowa Dee-ni' Nation with respect to the above-identified project. The State and Grantee, in mutual consideration of the promises made herein and in the agreement, of which this is an amendment, agree to the following:

Term of Agreement
This agreement is being amended to change the agreement end date from October 31, 2018 to January 30, 2019, an extension of three months. The agreement amount of $1,071,400.00 has not changed.

In all other respects, the agreement and the terms and conditions if relevant thereto, shall remain in full force and effect. In witness whereof, the parties hereto have executed this amendment as of the date entered below.

TOLOWA DEE-NI' NATION

By Briannon Fraley

Title Interim Executive Director

Date 10/30/18

STATE OF CALIFORNIA
NATURAL RESOURCES AGENCY

By Deborah Halberstadt

Title Deputy Secretary

Date 10/30/18

CERTIFICATION OF FUNDING

AMOUNT OF ESTIMATE FUNDING		AGREEMENT NUMBER		FUND		
$1,071,400.00		**P01-1-01**		**6083 Water Quality, Supply, and Infrastructure Improvement Local Assistance (Prop 1)**		
ADJ. INCREASING ENCUMBRANCE		APPROPRIATION				
		0540-6083-003-2015-101-10				
ADJ. DECREASING ENCUMBRANCE		FUNCTION				
		Local Assistance				
UNENCUMBERED BALANCE		LINE ITEM ALLOTMENT		CHAPTER	STATUTE	FISCAL YEAR
		0540-6083-003-2015-101-10		**10**	**2015**	**2015/16**
T.B.A. NO.	B.R. NO.	INDEX	OBJ. EXPEND	PCA	PROJECT NUMBER	
		0540	**751**	**23104**	**P01101**	

I hereby certify upon my personal knowledge that budgeted funds are available for this encumbrance

SIGNATURE OF ACCOUNTING OFFICER

DATE 11/6/18

Attachment E

Implementation Schedule

Indian Community Development Block Grant (ICDBG)

U.S. Department of Housing and Urban Development
Office of Public and Indian Housing

OMB Approval No. 2577-0191
(exp. 4/30/2018)

See Instructions and Public Reporting Statement on back.
Submit a separate implementation schedule for each project category.

1. Name of Applicant (as shown in Item 5, Standard Form 424)	2. Application/Grant Number (to be assigned by HUD)	3. ☐ Original (First submission to HUD) ☐ Pre-Award Submission ☑ Amendment (submitted after grant approval)	Date (mm/dd/yyyy)
Tolowa Dee-ni' Nation	B-16-SR-06-3482		07/07/2017

4. Name of Project (as shown on form HUD-4123, item 4)	5. Effective Date (mm/dd/yyyy)	Expected Completion Date (mm/dd/yyyy)	Expected Closeout Date (mm/dd/yyyy)
Wastewater Treatment Improvement Project	10/03/2016	11/30/2017	12/31/2017

6. Environmental Review Status

☐ **Exempt** (As described in 24 CFR 58.34)
☐ **Under Review** (Review underway; findings not yet made)
☐ **Finding of No Significant Impact** (Finding made that request for release of funds for project is not an action which may significantly affect the environment.)
☐ **EIS Required** (Finding that project may significantly affect environment or EIS automatically required by 24 CFR 58.37)
☐ **Not Started** (Review not yet begun)
☐ **Certification** (Environmental review completed; certification and request for release of funds being prepared for submission.)
☑ **Categorically Excluded** (as described in 24 CFR 58.35)

7. Tribal Fiscal Year (mm/dd/yyyy): 10/01/2016

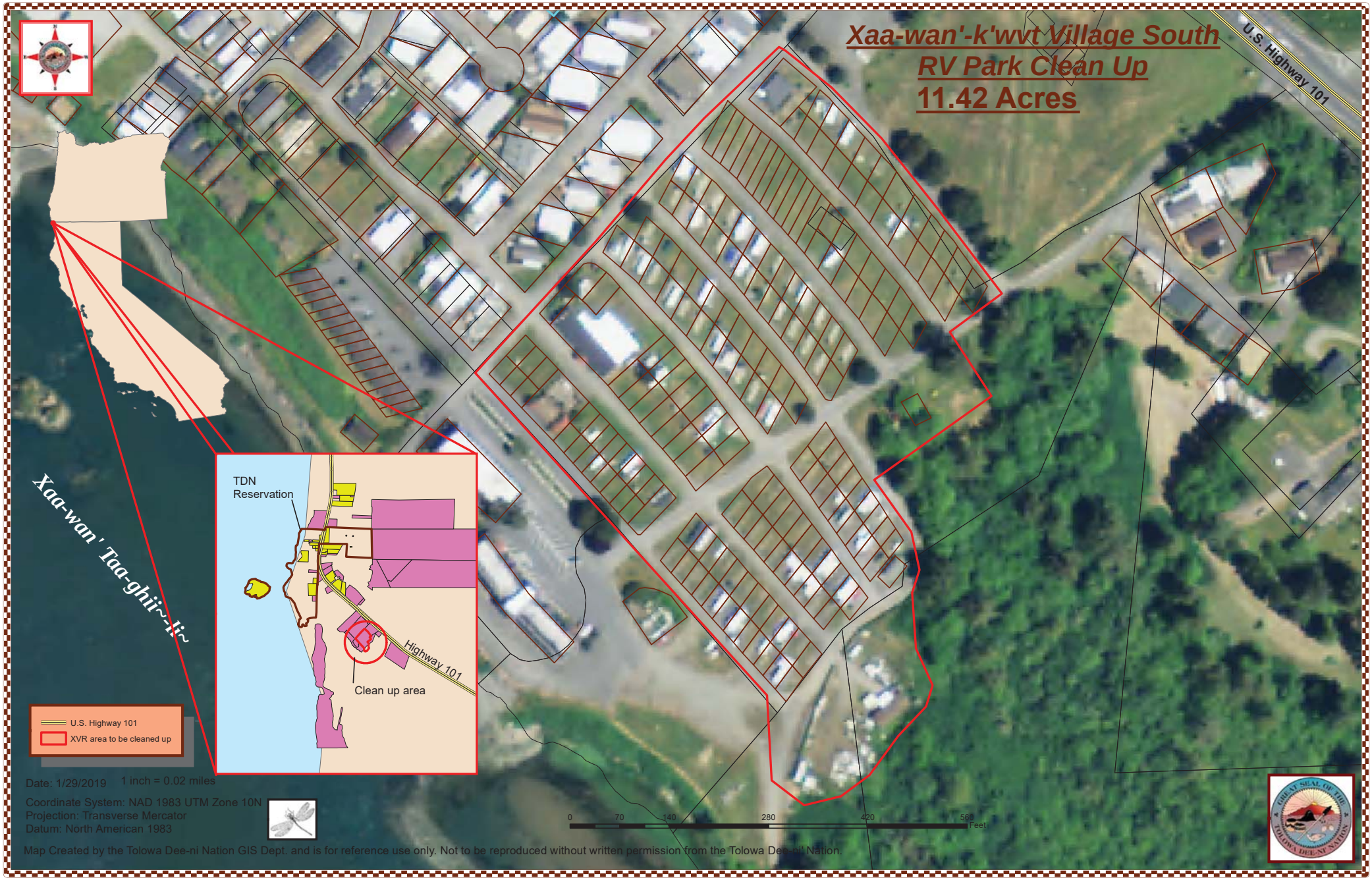
8. Task List (List tasks such as environmental assessment, acquisition, etc.)

9. Schedule. Use Calendar Year (CY) quarters. Fill-in the CY below. See detailed instructions on back.

	CY 16												CY ____									Date (mm/dd/yyyy) (If exceeds 8th Q tr
	1st Qtr.			2nd Qtr.			3rd Qtr.			4th Qtr.			5th Qtr.			6th Qtr.			7th Qtr.			8th Qtr.	
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D								
Project Admin. & Prep (see detailed workplan)	x	x	x	x	x	x	x	x	x	x													
Competitively Procure Contractor (contract award)		x	x																				
Environmental Review, Posting and HUD Approval				x	x	x	x	x	x	x													
Design				x	x		x			x													
Procure Equipment				x	x	x	x	x	x	x													
Construction (see detailed workplan)										x	x	x	x	x									
Final Inspection and Approval										x				x	x								
Grant Close-out										x					x								
Audit																							07/31/2018

10. Planned Drawdowns by Quarter (Enter amounts non-cumulatively)	$	$	$	$ 410,000.00	$ 195,000.00	$	$	$	$Total	605,000.00
11. Cumulative Drawdown (If more than one page, enter total on last page only)	$ 0.00	$ 0.00	$ 0.00	$ 410,000.00	$ 605,000.00	$ 605,000.00	$ 605,000.00	$ 605,000.00	$Total	605,000.00

Attachment A



Tolowa Dee-ni' Nation Land Use Plan
Smith River, California

Attachment B

JONES JONES
ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS

XVR SITE - ECO-RESORT MASTER PLAN (10-15 YEARS)
September 2018

SCALE: 1"=80'-0"
0 20 40 80 160 240 FEET

N

Attachment G

RECORDING REQUESTED BY:
Crescent Land Title Company

When Recorded Mail Document To:
Tolowa Dee-ni' Nation
140 Rowdy Creek Road
Smith River, Ca 95567

Doc # 20164954
Page 1 of 7
Date: 11/30/2016 03:33P
Filed by: CRESCENT LAND TITLE
Filed & Recorded in Official Records
of COUNTY OF DEL NORTE
ALISSIA D. NORTHRUP
COUNTY CLERK-RECORDER
Fee: $5091.00

Escrow No.: 25259KB
Title No.: 25259KB

APN: 102-170-01, 102-170-02, 120-170-03, 102-170-04, 120-170-05, 102-710-03, 102-710-04, 102-710-05

SPACE ABOVE THIS LINE FOR RECORDER'S USE

GRANT DEED

The undersigned grantor(s) declare(s) County transfer tax is $5,060.00

- ☐ computed on full value of property conveyed, or
- ☐ computed on full value less value of liens or encumbrances remaining at time of sale,
- ☒ The property is located in the of

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

Reservation Ranch, a partnership, as to a portion of said land and Ship Ashore, a partnership, as to the remainder and Ship Ashore, a partnership, as to PARCEL TWO

hereby GRANT(S) to

Tolowa Dee-ni' Nation, a federally recognized Indian Tribe

the following described real property:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

APN:

Dated: November 30, 2016

Reservation Ranch , a partnership

BY: _____
Robert L. Westbrook, Jr., Trustee

Ship Ashore, a partnership

BY: _____
Robert L. Westbrook, Jr., Trustee

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Del Norte

On Nov 30, 2016 before me, **COURTNEY COLTON, NOTARY PUBLIC,** personally appeared Robert L. Westbrook who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
Witness my hand and official seal.

Signature _____ (Seal)

TCC1 COURTNEY COLTON TCC1
COMM. # 2040709
NOTARY PUBLIC • CALIFORNIA
DEL NORTE COUNTY
My Commission Expires
September 8, 2017

Escrow No.: 25259KB
Title Order No.: 25259KB

EXHIBIT A

THE REAL PROPERTY HEREIN REFERRED TO IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF DEL NORTE AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

Those portions of Sections 16, 17 and 20, Township 18 North, Range 1 West, Humboldt Meridian, described as follows:

Parcels 1, 3, 4, 5, 6 and 7 as shown on the Parcel Map filed in the Office of the County Recorder of Del Norte County, California on February 20, 1989 in Book 8 of Parcel Maps, page 111.

EXCEPTING from Parcels 5 and 7, any portion of the land within the natural bed of the Smith River below the ordinary high water mark where it was located prior to any artificial or avulsive changes in the location of the shoreline.

PARCEL TWO:

Those portions of Sections 16, 17 and 20, Township 18 North, Range 1 West, Humboldt Meridian, described as follows:

Parcel 2 as shown on the Parcel Map filed in the Office of the County Recorder of Del Norte County, California on February 20, 1998 in Book 8 of Parcel Maps, page 111.

Together with the Ship Ashore Sewage Treatment Ponds and Connecting Strip Being Boundary Adjusted to and Merged into Parcel "2" (APN 102-710-03) as said Parcel is Shown in Book 8 of Parcel Maps, Page 111-112, Del Norte County Records, described as:

PARCEL ONE

All that real property in Sections 16 and 21, Township 18 North, Range 1 West, Humboldt Meridian, in the County of Del Norte, State of California, bounded and described as follows:

Beginning at a 2-inch iron pipe located at the most Southerly corner of the 6.02 acre parcel shown in Book 3 of Maps, page 61, Del Norte County Records, said point being further described as the most Southerly corner of Parcel "3" as shown in Book 1 of Parcel Maps, page 14, and said point being located 353.41 feet South and 4,695.27 feet West from the Northeast corner of Section 21, Township 18 North, Range 1 West, Humboldt Meridian, and running from said point South 19 degrees 35 minutes West a distance of 102.08 feet to a point marked by a 2" diameter aluminum survey disk marked "Property Corner-Davis-LS3340", said point being the TRUE POINT OF BEGINNING of the land described herein, and running:

(1) Thence South 59 degrees 56 minutes 08 seconds East for a distance of 280.88 feet to an angle point at the center of a 2" diameter steal cyclone fence post;

EXHIBIT A
(Continued)

(2) Thence South 13 degrees 25 minutes 02 seconds East a distance of 34.03 feet to an angle point at the center of a 2" diameter steel cyclone fence post;

(3) Thence South 23 degrees 01 minutes 52 seconds West a distance of 104.77 feet to an angle point at the center of a 2" diameter steel cyclone fence post;

(4) Thence South 55 degrees 42 minutes 45 seconds East a distance of 187.98 feet to an angle point at the center of 2" diameter steel cyclone fence post;

(5) Thence South 32 degrees 27 minutes 17 seconds West a distance of 245.05 feet to an angle point at the center of a 2" diameter steel cyclone fence post;

(6) Thence North 64 degrees 47 minutes 41 seconds West a distance of 135.35 feet to an angle point at the center of a 2" diameter steel cyclone fence post;

(7) Thence North 25 degrees 38 minutes 46 seconds East a distance of 25.91 feet to an angle point at the center of a 2" diameter steel cyclone fence post;

(8) Thence North 53 degrees 43 minutes 10 seconds West a distance of 47.68 feet to an angle point at the center of a 2" diameter steel cyclone fence post;

(9) Thence North 23 degrees 45 minutes 39 seconds East a distance of 44.74 feet to an angle point at the center of a 2" diameter steel cyclone fence post;

(10) Thence North 59 degrees 08 minutes 35 seconds West a distance of 238.74 feet to an angle point at the center of a 2" diameter steel cyclone fence post;

(11) Thence North 06 degrees 15 minutes 00 seconds West a distance of 41.42 feet to a 2" diameter aluminum survey disk stamped "Property Corner-Davis-LS 3340", said point being 20 feet offset Southerly (at right angles) from the Southerly line of Parcel "1" as shown on the Parcel Map filed in Book 1 of Parcel Maps, page 14, Del Norte County Records;

EXHIBIT A
(Continued)

(12) Thence South 83 degrees 45 minutes 00 seconds West a distance of 505.50 feet to an angle point offset 20.00 feet westerly (at right angles) from the West line of Section 21 as said line is shown on the Map filed in the Book 2 of Maps, page 8, Del Norte County Records;

(13) Thence North 00 degrees 16 minutes 00 seconds West, parallel to said West line of Section 21 a distance of 917.36 feet, more or less, to a point on the South line of Parcel "2" as shown in Book 8 of Parcel Maps, page 111;

(14) Thence North 22 degrees 57 minutes East along said line a distance of 50.54 feet to a point on the Section line between Sections 16 and 17;

(15) Thence South 00 degrees 16 minutes 00 seconds East along said Section line, and continuing along the West line of Section 21 for a total distance of 941.75 feet, more or less, to the Southwest corner of Parcel "1" as shown on the Parcel Map filed in Book 1 of Parcel Maps, page 14, Del Norte County Records;

(16) Thence North 83 degrees 45 minutes East along the South line of Parcel "1" a distance of 505.06 feet, more or less, to the Southeast corner of said parcel "1";

(17) Thence North 19 degrees 35 minutes East along the Southeast line of Parcel "1" a distance of 262.02 feet to the TRUE POINT OF BEGINNING.

This document describes a Boundary Adjustment approved by the Del Norte County Planning Commission on July 10, 2013. The land described herein is to be merges with and become an integral part of Parcel "2" as shown in Book 8 of Parcel Maps, page 111-112, Del Norte County Records.

PARCEL TWO

A right-of-way for road and utility purposes 20-feet in width, extending from US Highway 101 to Parcel One as above described, as is graphically shown on the Boundary Adjustment Record of Survey Map for Ship Ashore Resort filed December 11, 2014 in Book 16 of Maps, page 76.

PARCEL THREE

EXHIBIT A
(Continued)

A right-of-way 10-feet in width for fence maintenance extending 10-feet outside of portions of the Ship Ashore Sewage Treatment Ponds land as is graphically shown on the Boundary Adjustment of Record of Survey Map for Ship Ashore Resort filed December 11, 2014 in Book 16 of Maps, page 76.

Tolowa Dee-ni' Nation

140 Rowdy Creek Rd, Smith River, CA 95567-9525
Ph: (707) 487-9255 Fax: (707) 487-0930

This is to certify that the interest in real property conveyed by the within or attached Deed to the **Tolowa Dee-ni' Nation**, hereinafter referred to as GRANTEE, is hereby accepted by the undersigned officer or agent on behalf of the **Tolowa Dee-ni' Nation** of said **GRANTEE** pursuant to authority conferred by The Constitution of the said Tribal Council ratified June 27, 1987, a certified copy of which said Constitution is recorded in the Department of Interior, Bureau of Indian Affairs of Redding, California, and the **GRANTEE** consents to the recordation there of by its duly authorized officer.

DATED: 11-30-16

Loren Me'-lash-ne Bommelyn

Loren Me'-lash-ne Bommelyn, Tribal Chair

When recorded, mail to
Chief Executive Officer
Tolowa Dee-ni' Nation
140 Rowdy Creek Rd
Smith River, CA 95567-9525

DOC # 20164954 Page 7 of 7

Attachment H

DRAFT
ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES

Tolowa Dee-ni' Nation TBA
12370 US-101 and 200 N Salmon Harbor Rd
Smith River, Del Norte County, California

Prepared for:
U.S. Environmental Protection Agency
Region 9

USACE Contract Number: W912P7-16-D-0001
Project Number No.: 20074.067.010.0001.01
November 2018

Prepared by:

Weston Solutions, Inc.
2300 Clayton Road Suite 900
Concord, CA 94520
(925) 948-2600

DRAFT
ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES

Tolowa Dee-ni' Nation TBA
12370 US-101 and 200 N Salmon Harbor Rd
Smith River, Del Norte County, California

USACE Contract Number: W912P7-16-D-0001
Project No.: 20074.067.010.0001.01

Approved by: _____ _____
Wilson Yee, Project Manager — Date
Weston Solutions, Inc.

Approved by: _____ _____
Brian Milton, ABCA Quality Assurance Coordinator — Date
Weston Solutions, Inc.

Approved by: _____ _____
Lisa Hanusiak, Interagency Agreement Project Officer — Date
U.S. Environmental Protection Agency, Region 9

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS AND ACRONYMS

%	percent
ABCA	Analysis of Brownfields Cleanup Alternatives
ACM	asbestos-containing material
APN	Assessor's Parcel Number
bgs	below ground surface
Cal/OSHA	California Division of Occupation Safety and Health
CAM	California Administrative Manual
CBM	contaminated building materials
CCR	California Code of Regulations
CFR	Code of Federal Regulations
DIR	California Department of Industrial Relations
DTSC	California Department of Toxic Substances Control
DTSC-SL	California Department of Toxic Substances Control Screening Level
DU	decision unit
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
ESL	Environmental Screening Level
HAZWOPER	Hazardous Waste Operations and Emergency Response
HUD	U.S. Department of Housing and Urban Development
IC	institutional control
LBP	lead-based paint
LUC	land use covenant
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NESHAP	National Emission Standards for Hazardous Air Pollutants
OSHA	Occupation Safety and Health Administration
PCB	polychlorinated biphenyl
PLM	Polarized Light Microscopy
ppm	parts per million
REC	Recognized Environmental Condition
RSL	Regional Screening Level
RWQCB	Regional Water Quality Control Board
sf	square feet
Site	12370 US-101 and 200 N Salmon Harbor Rd, Smith River, Del Norte County, California
STLC	Soluble Threshold Limit Concentration
TBA	Targeted Brownfields Assessment
TDN	Tolowa Dee-ni' Nation
TSCA	Toxic Substances Control Act of 1976
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey
WESTON®	Weston Solutions, Inc.
WET	Waste Extraction Test
XVR	Xaa-wan'-k'wvt Village and Resort

EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency (EPA), Region 9 tasked Weston Solutions, Inc., (WESTON®) to conduct an Analysis of Brownfields Cleanup Alternatives (ABCA) for the property located at 12370 US-101, and 200 N. Salmon Harbor Rd., in Smith River, Del Norte County, California (Site). This ABCA was prepared under U.S. Army Corps of Engineers (USACE) Contract W912P7-16-D-0001. WESTON performed fieldwork for a Phase II Targeted Brownfields Assessment (TBA) during the summer of 2018, and the draft TBA report is being prepared concurrently with this draft ABCA report. The TBA was requested by the Tolowa Dee-ni' Nation (TDN, the applicant) and performed under contract with the USACE. The purpose of the TBA was to characterize conditions at the Site because it is being considered for reuse. This ABCA report identifies and compares different cleanup scenarios to address contaminants identified during the Phase II Targeted Brownfields Assessment (TBA) building surveys and soil sampling. The cleanup scenarios were evaluated on effectiveness, implementability, and cost.

The Site is located in a mixed residential and commercial setting, and is assigned the following Del Norte County Assessor's Parcel Numbers (APNs):

1. Ship Ashore Gift Shop, 102-170-001-000
2. Xaa-wan'-k'wvt Village and Resort (XVR) Hotel, 102-170-004-000
3. XVR Restaurant, 102-170-004-000
4. Maintenance Yard and Sheds, 102-710-003-000
5. Ship Ashore Registration Office, 102-170-004-000
6. XVR (South Park) Recreation Hall, 102-170-002-000
7. North Park Recreation Hall, 102-720-001-000 and XVR Harbor Office, 102-720-002-000
8. XVR Registration Office, 102-170-002-000

The Site is a subset of an approximately 65-acre mobile home park called the Xaa-wan'-k'wvt Village and Resort (XVR). The Site layout is shown on Figure ES-1. The Site is comprised of eight discrete areas in the XVR mobile home park that historically serviced both short-term (recreational vehicles and tent camping) and long-term (fixed-place mobile homes) occupants. A hotel, restaurant, two recreation halls, two office buildings, a maintenance yard, and a dry-docked ship formerly used as a museum and gift shop are located on the property and were part of the Phase II assessment work. The Applicant's stated planned Site reuse in the eight areas included as part the Phase II assessment work is for commercial and industrial activities.

The following Recognized Environmental Conditions (RECs) were identified during the Phase II sampling:

- Asbestos-containing materials (ACM) were found in building materials in all eight structures that were sampled, as well as discarded ACM in debris piles in the maintenance area and ACM stored in the shed in the east side of maintenance yard (Decision Unit [DU]-08).

- Lead-based paint (LBP) was detected at concentrations that exceeded the 5,000 milligrams per kilogram (mg/kg) screening level in six of eight structures.

- Fluorescent light ballasts that may contain polychlorinated biphenyls (PCBs) were observed in the Ship Ashore Gift Shop.

- Lead in surface soil adjacent to the Ship Ashore Gift Shop (sample DU-02-0) was detected at a concentration (390 mg/kg) (see Figure ES-2) that exceeded the California Department of Toxic Substances Control (DTSC) screening level of 320 mg/kg for commercial/industrial soils in a composite dripline sample. The sample was collected from surface soils (0 to 6 inches below ground surface [bgs]) surrounding the base of the ship. Detected lead concentrations did not exceed the DTSC screening level in the composite sample (sample DU-02-1.5) collected from the same locations at 1.5 to 2 feet bgs, suggesting the impacts are limited to surface soils. Additionally, lead did not exceed the EPA Regional Screening Level (RSL) of 800 mg/kg for commercial/industrial soils in any of the 34 Site-wide soil samples analyzed for lead. The sample was subsequently submitted for analysis using the California Waste Extraction Test (WET). The soluble lead concentration in the sample was 7.7 milligrams per liter (mg/L), which exceeds the California Soluble Threshold Limit Concentration (STLC) limit of 5 mg/L. Preliminary information from lead waste analyses performed for the LBP survey of building materials found soluble lead concentrations of 8.8 mg/L and 9.8 mg/L in paint from DU-01 and DU-02, respectively, which also exceed the STLC limit. If surface soils from DU-02 and paint from DU-01 and DU-02 are removed and disposed of at an off-site location, it is assumed that they will need to be treated as California hazardous waste.

- A total of 17 surface and shallow subsurface soil samples from the Maintenance Yard (not including dripline samples that were analyzed only for lead) were analyzed for 17 metals (California Administrative Manual Title 22 Metals [CAM 17]) using EPA Method 6010B. Cadmium was the only metal detected above screening levels for commercial/industrial soil in any of the CAM 17 samples. Cadmium was detected at a concentration of 21 mg/kg in one composite surface soil sample collected in DU-08G (Figure ES-3), which exceeds the DTSC Screening Level (DTSC-SL) of 7.3 mg/kg for commercial/industrial soils in 1 out of 17 surface and shallow subsurface samples analyzed for cadmium. There were no exceedances of RSLs or San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for other metals in commercial/industrial soils in any of the 17 samples analyzed for CAM 17 metals.

Table ES-1 summarizes the cleanup options identified to address these concerns in order to protect human health from unacceptable exposures. Alternatives are divided into those that mitigate contaminated building materials (CBM) and those that mitigate contaminated Site soils. Alternatives will need to be combined to mitigate potential impacts from CBM and Site soils in DU-02 and DU-08. Site locations associated with the ABCA alternatives are shown on Figures ES-2 and ES-3. The cost estimates presented in this ABCA are rough order-of-magnitude estimates that were prepared solely for the comparison of the identified alternatives and should not be used as design-level estimates.

Table ES-1
Summary and Comparison of Cleanup Alternatives

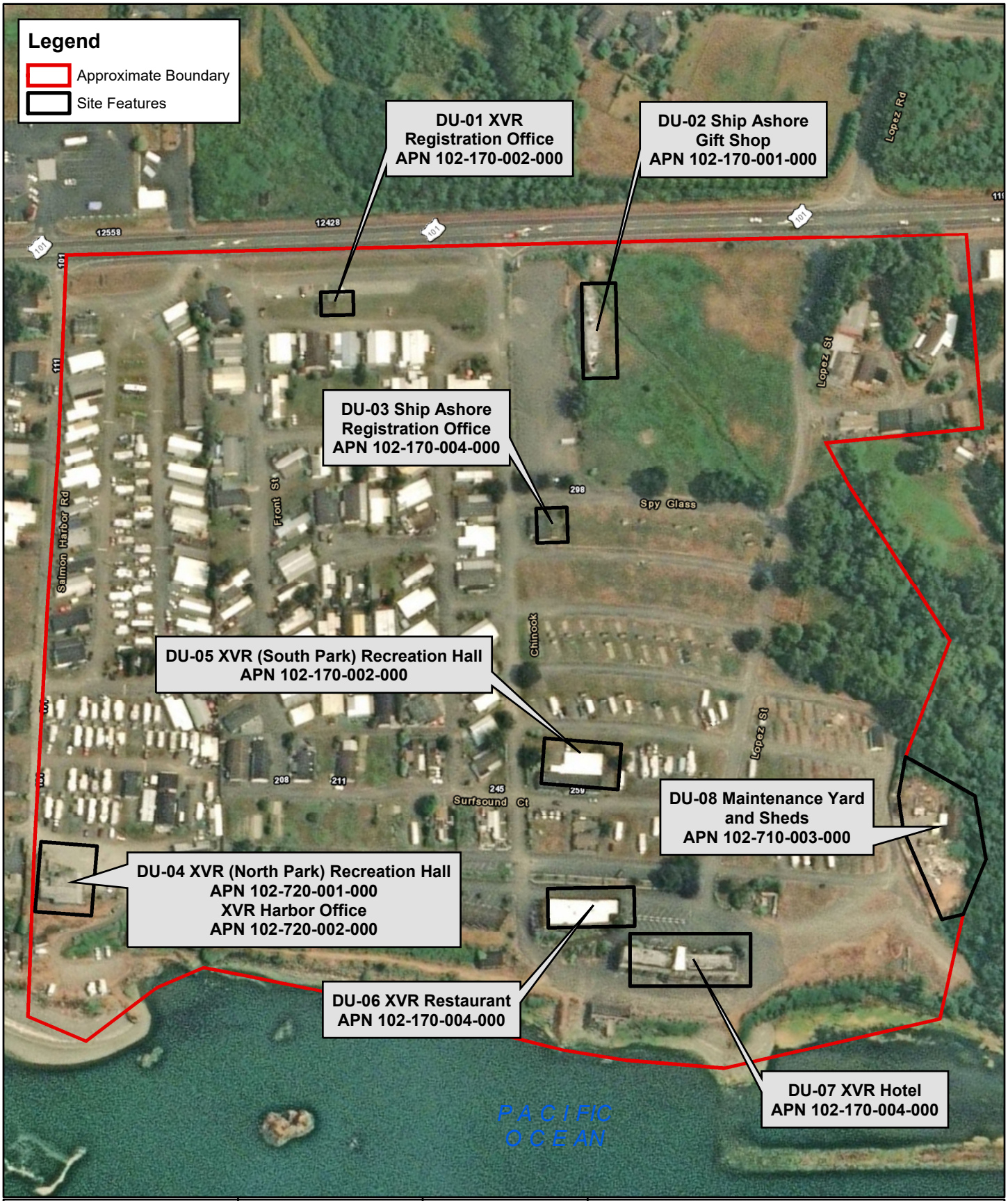
Alternative	Actions	Effectiveness	Implementability	Cost [1]	Considerations
CBM 1: No Action	None	Low	Easy	None	This alternative will not address potential human health concerns for the planned Site reuse and restoration actions.
CBM 2: Limited Hazardous Building Materials Abatement with ICs	• Remove friable asbestos waste, materials that may contain PCB oils, including the fluorescent light ballasts, remove LBP that is blistering and peeling, and encapsulate the LBP that is not deteriorated. • Implement Institutional Control/Land Use Covenants (IC/LUCs) that could require ACM removal, continued encapsulation of the LBP, or depending on the concentration and condition, complete LBP removal if the buildings are to be further renovated or demolished.	Moderate	Moderately Easy	$7,050,000	Limited CBM removal in Ship was not deemed feasible or fully protective.
CBM 3: Complete Hazardous Building Materials Removal, Building Demolition	• Remove hazardous and contaminated building materials containing ACM, LBP, or PCBs. Demolish remaining portions of building.	High	Moderate	$20,299,000	Work areas during LBP removal will need to be fully contained. Concrete and asphalt from buildings may need asbestos abatement.
SS 1: No Action	None	Low	Easy	None	This alternative will not address potential human health concerns for the planned Site reuse and restoration actions.
SS 2: Removal and Off-Site Disposal of ACM with ICs	• Identify and remove ACM debris and adjacent soils from the Site. • Implement ICs requiring that land be used only for commercial or industrial purposes unless additional remedial work is performed.	Moderate	Moderately Easy	$62,000	This alternative may not be considered administratively feasible unless federal regulations and action levels are selected.

Table ES-1
Summary and Comparison of Cleanup Alternatives (Continued)

Alternative	Actions	Effectiveness	Implementability	Cost [1]	Considerations
SS 3: Capping of Contaminated Soil in DU-02 and DU-08, Removal and Disposal of ACM Piles, with ICs	• Identify and remove ACM debris and adjacent soils from the Site. • Install a cover over areas that exceed Site Action Levels. • Perform confirmation soil sampling and analysis to confirm the cleanup goals are achieved. • Implement ICs requiring monitoring and maintaining the integrity of the cap, and ensuring the land is used only for commercial or industrial purposes unless additional remedial work is performed.	Moderately high	Moderately Easy	$156,000	The contaminated soil would remain in place. Over time the cover will degrade and if it is not repaired, it will no longer mitigate exposure.
SS 4: Excavation of Contaminated Soil in DU-02 and DU-08, Removal and Disposal of ACM and Debris Piles, Confirmation Sampling, and Off-Site Disposal with ICs	• Identify and remove ACM debris and adjacent soils from the Site. • Excavate soils that exceed Site screening levels. • Perform confirmation soil sampling and analysis to confirm the cleanup goals are achieved. • Characterize excavated soil for disposal in accordance with the assumed receiving facility requirements and applicable regulations.	Moderately high	Moderately Easy	$215,000	Based on preliminary soil waste profile sampling, portions of the excavated soil and debris may be a California hazardous waste. The soil would be transported to an appropriate landfill.

Notes:

[1] The preliminary cost estimates presented in this ABCA are rough order-of-magnitude estimates that were prepared solely for the relative comparison of the identified alternatives and should not be used as design-level estimates.
ABCA = Analysis of Brownfields Cleanup Alternatives
CBM = contaminated building materials
SS = Site soils
IC = institutional control
LUC = land use covenant



0 Scale in Feet 240

PREPARED BY:
Weston Solutions, Inc.
2300 Clayton Rd.
Suite 900
Concord, CA 94520

PREPARED FOR:
EPA Region 9
Brownfields Program

FIGURE ES-1
SITE OVERVIEW
Tolowa Dee-ni' Nation
XVR and Salmon Harbor Sites
Analysis of Brownfields Cleanup Alternatives
Smith River, Del Norte County, CA

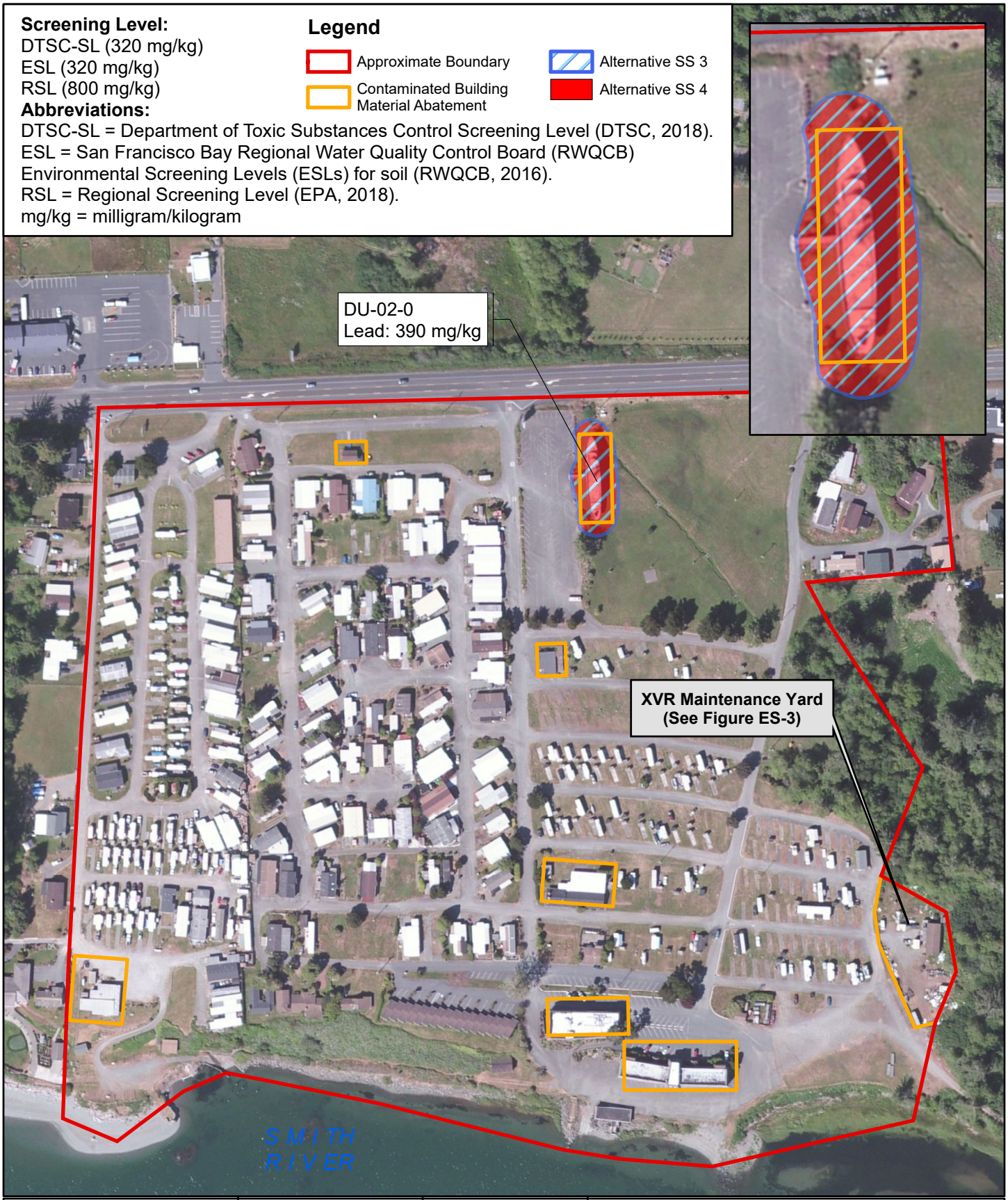
Project No.: 20074.067.010.0001.01

Screening Level:
DTSC-SL (320 mg/kg)
ESL (320 mg/kg)
RSL (800 mg/kg)

Legend

- Approximate Boundary
- Contaminated Building Material Abatement
- Alternative SS 3
- Alternative SS 4

Abbreviations:
DTSC-SL = Department of Toxic Substances Control Screening Level (DTSC, 2018).
ESL = San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for soil (RWQCB, 2016).
RSL = Regional Screening Level (EPA, 2018).
mg/kg = milligram/kilogram



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Suite 900
Concord, CA 94520

PREPARED FOR:
EPA Region 9
Brownfields Program

FIGURE ES-2

DU-01 THROUGH DU-07 ALTERNATIVES
Tolowa Dee-ni' Nation
XVR and Salmon Harbor Sites
Analysis of Brownfields Cleanup Alternatives
Smith River, Del Norte County, CA

Project No.: 20074.067.010.0001.01

Screening Level:
DTSC-SL (7.3 mg/kg)
ESL (580 mg/kg)
RSL (980 mg/kg)

Legend

Maintenance Yard
Approximate Boundary
Alternative SS 3
Alternative SS 4
Suspect ACM

Abbreviations:
DTSC-SL = Department of Toxic Substances Control Screening Level (DTSC, 2018).
ESL = San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for soil (RWQCB, 2016).
RSL = Regional Screening Level (EPA, 2018).
mg/kg = milligram/kilogram

0 Scale in Feet 40

PREPARED BY:
Weston Solutions, Inc.
2300 Clayton Rd.
Suite 900
Concord, CA 94520

PREPARED FOR:
EPA Region 9
Brownfields Program

FIGURE ES-3
DU-08 MAINTENANCE YARD ALTERNATIVES
Tolowa Dee-ni' Nation
XVR and Salmon Harbor Sites
Analysis of Brownfields Cleanup Alternatives
Smith River, Del Norte County, CA

Project No.: 20074.067.010.0001.01

1. INTRODUCTION AND BACKGROUND

The U.S. Environmental Protection Agency (EPA), Region 9 tasked Weston Solutions, Inc., (WESTON®) under EPA Contract W912P7-16-D-0001 to conduct an Analysis of Brownfields Cleanup Alternatives (ABCA) for the property located at 12370 US-101, and 200 N. Salmon Harbor Rd., in Smith River, Del Norte County, California, herein after referred to as the Site. The ABCA is intended to be used in conjunction with a Phase II Environmental Site Assessment (ESA) Report, which is being prepared concurrently with this ABCA. The purpose of this ABCA is to evaluate possible remedial alternatives based on known Site conditions and the anticipated reuse of the Site. This evaluation will be expanded, modified if necessary, and incorporated into the final Site Cleanup Plan for review by the community and project partners.

1.1 SITE LOCATION

The Site is located at 12370 US-101, and 200 N. Salmon Harbor Rd., in Smith River, Del Norte County, California (Figure 1). The Site is located in a mixed residential and commercial setting, and is assigned the following Del Norte County Assessor's Parcel Numbers (APNs):

1. Ship Ashore Gift Shop, 102-170-001-000
2. Xaa-wan'-k'wvt Village and Resort (XVR) Hotel, 102-170-004-000
3. XVR Restaurant, 102-170-004-000
4. Maintenance Yard and Sheds, 102-710-003-000
5. Ship Ashore Registration Office, 102-170-004-000
6. XVR (South Park) Recreation Hall, 102-170-002-000
7. North Park Recreation Hall, 102-720-001-000 and XVR Harbor Office, 102-720-002-000
8. XVR Registration Office, 102-170-002-000

The geographic coordinates for the approximate center of the Site are 41.946262° North latitude and 124.197510° West longitude. The Site is bordered to the north by US Hwy 101 and All Star Liquors; to the northeast and east by vacant land, vacant businesses, and private residences; to the northwest by multiple private residences; to the west and southwest by the mouth of the Smith River; to the southeast by vacant land, multiple private residences, and a wastewater treatment plant; and to the south by vacant land.

The Site is a subset of an approximately 65-acre mobile home park called the Xaa-wan'-k'wvt Village and Resort (XVR). The Site layout is shown on Figure 2. The Site is comprised of eight discrete areas in the XVR mobile home park which historically serviced both short-term (recreational vehicles and tent camping) and long-term (fixed-place mobile homes) occupants. A motel, restaurant, two recreation halls, two office buildings, a maintenance yard and a dry-docked ship formerly used as a museum and gift shop are located on the property and were part of the Phase II assessment work. The Applicant's stated planned Site reuse in the eight areas included as part the Phase II assessment work is for commercial and industrial activities.

1.2 OWNERSHIP AND PREVIOUS USE

The Site was purchased in November 2016. Prior to purchase, the Site had commercial and residential facilities, as well as recreational uses. The Ship Ashore Gift Shop, hotel, restaurant, RV park, and mobile home park made up the commercial and residential facilities at the Site, along with associated administrative and maintenance facilities.

1.3 PREVIOUS INVESTIGATIONS

The hotel had an extensive asbestos survey conducted in January 2017 by Asbestos Science Technologies, which confirmed by Polarized Light Microscopy (PLM) analysis the presence of >1 percent (%) asbestos-containing materials (ACM) in ceiling and acoustical material, linoleum, joint compound, mortar, and mastic. Approximately 15 rooms out of 35 were surveyed; however, it is not possible to identify the specific locations of materials analyzed or which materials were sampled and found to be <1% ACM, based on the documentation provided in the survey report. The restaurant also had a limited asbestos survey conducted in January 2017 by Asbestos Science Technologies, which confirmed by PLM analysis the presence of >1% ACM in linoleum and ceiling material. It is unclear from the survey report which rooms and what materials in the restaurant were surveyed and analyzed.

There has been no known regulatory involvement at the Site.

1.4 PHASE II ENVIRONMENTAL SITE ASSESSMENT

As part of the TBA, WESTON conducted a Phase II ESA to further assess Site conditions. The preliminary results are presented on Figures 3 and 4. The TBA Report is being developed concurrently with this ABCA document, and the final results will be available when the TBA Report is completed.

The assessment areas, associated decision units (DUs), CBM detected, sample depths, and soil contaminants of concern detected during Phase II sampling are summarized in Table 1-1.

Table 1-1
Decision Units, Soil Sample Information, and Contaminants of Concern

Decision Unit	Assessment Area	Contaminated Building Materials	Soil Sample Depth	Soil Contaminants of Concern
DU-01	XVR Registration Office	LBP, ACM	Surface	N/A
DU-02	Ship Ashore Gift Shop	LBP, ACM, PCBs	Surface	Lead
DU-03	Ship Ashore Registration Office	LBP, ACM	Surface	N/A
DU-04	XVR (North Park) Recreation Hall/XVR Harbor Office	LBP, ACM	Surface	N/A
DU-05	XVR (South Park) Recreation Hall	LBP, ACM	Surface	N/A
DU-06	XVR Restaurant	LBP, ACM	N/A	N/A
DU-07	XVR Hotel	LBP, ACM	Surface	N/A
DU-08	Maintenance Yard and Outbuildings	LBP, ACM, stored ACM building materials	Surface	Cadmium, Asbestos, ACM debris piles

Notes:
ACM = asbestos-containing materials LBP = lead-based paint
PCBs = polychlorinated biphenyls
N/A = not applicable

The RECs identified, based on the preliminary results of the Phase II investigation for the Site, are as follows:

- Asbestos-containing materials (ACM) were found in building materials in all eight structures that were sampled, as well as discarded ACM in debris piles in the maintenance area and ACM building materials stored in the shed in the east side of maintenance yard (DU-08).

- Lead-based paint (LBP) was detected at concentrations that exceeded the 5,000 milligrams per kilogram (mg/kg) screening level in six of eight structures.

- Fluorescent light ballasts that may contain polychlorinated biphenyls (PCBs) were observed in the Ship Ashore Gift Shop.

- Lead in surface soil adjacent to the Ship Ashore Gift Shop (sample DU-02-0) was detected at a concentration (390 mg/kg) (see Figure 3) that exceeded the California Department of Toxic Substances Control (DTSC) screening level of 320 mg/kg for commercial/industrial soils in a composite dripline sample. The sample was collected from surface soils (0 to 6 inches below ground surface [bgs]) surrounding the base of the ship. Detected lead concentrations did not exceed the DTSC screening level in the composite sample (sample DU-02-1.5) collected from the same locations at 1.5 to 2 feet

bgs, suggesting the impacts are limited to surface soils. Additionally, lead did not exceed the EPA Regional Screening Level (RSL) of 800 mg/kg for commercial/industrial soils in any of the 34 Site-wide soil samples analyzed for lead. The sample was subsequently submitted for analysis using the California Waste Extraction Test (WET). The soluble lead concentration in the sample was 7.7 milligrams per liter (mg/L), which exceeds the California Soluble Threshold Limit Concentration (STLC) limit of 5 mg/L. Preliminary information from lead waste analyses performed for the LBP survey of building materials found soluble lead concentrations of 8.8 mg/L and 9.8 mg/L in paint from DU-01 and DU-02, respectively, which also exceed the STLC limit. If surface soils from DU-02 and paint from DU-01 and DU-02 are removed and disposed of at an off-site location, it is assumed that they will need to be treated as California hazardous waste.

- A total of 17 surface and shallow subsurface soil samples from the Maintenance Yard (not including dripline samples that were analyzed only for lead) were analyzed for 17 metals (California Administrative Manual Title 22 Metals [CAM 17]) using EPA Method 6010B. Cadmium was the only metal detected above screening levels for commercial/industrial soil in any of the CAM 17 samples. Cadmium was detected at a concentration of 21 mg/kg in one composite surface soil sample collected in DU-08G (Figure 4), which exceeds the DTSC Screening Level (DTSC-SL) of 7.3 mg/kg for commercial/industrial soils in 1 out of 17 surface and shallow subsurface samples analyzed for cadmium. There were no exceedances of RSLs or San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for other metals in commercial/industrial soils in any of the 17 samples analyzed for CAM 17 metals.

- Arsenic was detected in 3 out of 17 surface and shallow subsurface soil samples from the Maintenance Yard, with concentrations ranging from 2.5 mg/kg to 6.4 mg/kg. Three surface and shallow subsurface results from DU-08G exceed the ESL of 0.31 mg/kg and the DTSC-SL of 0.36 mg/kg for commercial/industrial soil, and one shallow subsurface sample exceeds the RSL of 3 mg/kg for commercial/industrial soil. A U.S. Geological Survey (USGS) soil study of regional background metal concentrations was reviewed. Arsenic concentrations were reported in five background reference soil samples within approximately 65 miles of the Site in the range of 1.1 mg/kg to 10.4 mg/kg (USGS, 2013), which is comparable to the range of concentrations found at the Site. Based on the USGS study, the average arsenic background concentration in soil near Smith River is 6.88 mg/kg, which exceeds all relevant screening levels. Therefore, because arsenic concentrations exceeding the screening level are within the range of background concentrations, they are not considered to be due to historical activities on-site and are not considered a REC that needs to be addressed.

Soil sampling results above screening levels are presented in Table 1-1, Figures 3 and 4, and Tables A-1 and A-2.

1.5 PROJECT GOAL

The project goal is to mitigate the identified contaminants to levels appropriate for the planned Site reuse. The proposed plan is to redevelop the Site as a commercial and cultural space,

potentially including removing buildings to accommodate this planned reuse. Commercial screening levels would be considered appropriate for this reuse, and residences are not anticipated for the Site.

This ABCA addresses contaminants of concern (asbestos, PCBs, lead, and cadmium) only. General building renovations will not be discussed in this document, and costs for those improvements are neither considered nor included in the evaluation presented herein.

2. APPLICABLE REGULATIONS AND CLEANUP STANDARDS

2.1 CLEANUP OVERSIGHT RESPONSIBILITY

The Tolowa Dee-ni' Nation (TDN) is the applicant for the Site and is responsible for directing any cleanup of contamination. Site cleanup and redevelopment should be conducted in compliance with the applicable laws, regulations, and procedures outlined below. The EPA, California DTSC, and State Water Resources Control Board, Regional Water Quality Control Boards (RWQCBs) have the authority to regulate cleanup of polluted/contaminated sites in California. In order to improve the coordination between agencies on oversight of Brownfields cleanups, a Memorandum of Agreement was signed on March 1, 2005. The Memorandum of Agreement describes the process and considerations used to determine the appropriate lead agency for a particular Brownfields site. It is WESTON's understanding that at this time the lead regulatory agency has not been determined for the Site.

2.2 CLEANUP STANDARDS FOR MAJOR CONTAMINANTS

For the purpose of this ABCA, cleanup standards for the soil at the Site were assumed to be the following commercial/industrial screening levels:

- Building materials containing lead in paint or other surface coating material containing lead are defined by the U.S. Department of Housing and Urban Development (HUD) and EPA as greater than or equal to 5,000 parts per million (ppm) or 0.5% by weight (HUD, 2012). The cleanup standards were assumed to equal this level.

- The cleanup standard for asbestos is based on the EPA Asbestos-Containing Materials in Schools, Final Rule and Notice (EPA, 1987). Although this rule is in place primarily to protect child-occupied facilities, following the guidelines within the rule is encouraged for all building renovations for the overall protection of human health.

- Cleanup standards for lead in the soil at the Site are based on the DTSC-SL of 320 mg/kg for commercial/industrial soils (DTSC, 2018), and the RWQCB ESL for commercial/industrial shallow soil of 320 mg/kg (RWQCB, 2016).

- Cleanup standards for cadmium in the soil at the Site are based on the DTSC-SL of 7.3 mg/kg for commercial/industrial soils (DTSC, 2018).

- Cleanup standards for asbestos in soil from ACM debris piles are based on the California Division of Occupational Safety and Health (Cal/OSHA) regulations pertaining to asbestos-containing construction material, which contain asbestos in amounts between 0.1% and 1.0% (California Department of Industrial Relations [DIR], 2014a). Although this rule is in place primarily for worker protection, following the guidelines within the regulations is encouraged for Site soils for the overall protection of human health.

- Materials with PCB concentrations greater than 50 ppm are regulated under 40 Code of Federal Regulations (CFR) 761.61(a)(4)(ii) (EPA, 1998) and Toxic Substances Control Act (TSCA), and special hazardous waste disposal regulations apply to these materials.

Materials with PCB concentrations greater than 5 ppm may also need to be disposed of as regulated wastes.

2.3 LAWS AND REGULATIONS APPLICABLE TO THE CLEANUP

This section is for informational purposes only and the TBA applicant (or the party undertaking the cleanup) is responsible for ensuring compliance with all applicable laws and regulations.

The U.S. Department of Labor Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) standard codified at 29 CFR 1910.120 should be complied with when conducting cleanup activities at the Site. The HAZWOPER standard generally applies to cleanup operations required by federal, state, local, or other governmental body involving hazardous substances.

National Emission Standards for Hazardous Air Pollutants (NESHAP) are outlined in CFR Title 40 Chapter I Subchapter C Part 61 Subpart M. OSHA regulations regarding asbestos exposure during construction activities (i.e., renovation and demolition) are outlined in CFR Title 29 Subtitle B Chapter XVII Part 1926.1101, and OSHA regulations regarding respiratory protection are outlined in CFR Title 29 Subtitle B Chapter XVII Part 1910.134. A NESHAP notification form must be submitted at least 10 working days prior to the beginning of renovation or demolition activities involving ACMs. This notification form must include information regarding the company that performed the ACM survey, the analytical laboratory, the company performing the demolition or renovation activities, the company transporting waste that contains asbestos, and the landfill where the waste that contains asbestos will be disposed. It is recommended that removal and disposal of ACM in the debris piles be conducted by a company with asbestos-certified personnel trained to handle and dispose of ACM.

Cal/OSHA regulations limiting worker exposure to asbestos in construction work are outlined in 8 California Code of Regulations (CCR) Section 1529, and lead exposure in construction work in 8 CCR Section 1532.1 (DIR, 2014a, 2014b).

Federal laws and regulations applicable to this cleanup may include the Small Business Liability Relief and Brownfields Revitalization Act and the Davis-Bacon Act. Federal, state, and local laws regarding procurement of contractors to conduct the cleanup are also applicable.

3. EVALUATION OF BROWNFIELDS CLEANUP ALTERNATIVES

3.1 CLEANUP ACTION OBJECTIVES

The cleanup action objective is to mitigate potential exposure of the identified contaminants to levels protective of human health in a commercial/industrial exposure scenario for the specific areas described in Section 3.2 that were identified as part of the Phase II assessment work. The proposed cleanup alternatives and associated costs described herein may change if a different exposure scenario or exposure frequency/duration is selected, new characterization data are available, or a human health risk assessment is performed.

3.2 IDENTIFICATION OF CLEANUP ALTERNATIVES

Cleanup alternatives selected for evaluation were first assessed to determine whether the alternative would achieve the overall project goal to mitigate the identified contaminants and environmental conditions to levels appropriate for the commercial/industrial reuse. Those alternatives deemed potentially capable of achieving the overall project goal were further evaluated for effectiveness, implementability, and cost.

Alternatives that were considered but not considered for further evaluation are discussed in Table 3-1.

Table 3-1
Alternatives That Were Considered and Dismissed

Alternative	Actions	Considerations
Bioremediation	Introducing organisms, (e.g., microorganisms) to the contaminated soil so that they may consume and break down pollutants, or transform them into a less bioavailable form.	A bioremediation technology is unlikely to work with the different types of contaminants. As elements that cannot be broken down into simpler forms, lead and cadmium can be difficult to bioremediate. Due to the different types of contaminants at the Site, it is likely that multiple types of bioremediation would be required. Because it is not a standard technology, regulatory agencies are likely to require bench- and pilot-scale testing, including periodic laboratory analysis of soil samples prior to authorizing full-scale implementation. These tests are likely to increase the cost and duration of the project such that it would be much more expensive than the more conventional methods evaluated in this ABCA. This extra time would mean additional delay in Site reuse and would likely result in increased costs. Because of the high cost, long duration, loss of the use of a large portion of the property during remediation, and uncertainty regarding new and untested technologies, bioremediation was considered and rejected.
Phytoremediation	Use plants to uptake selected contaminants. Typically takes 2-4 years to reduce the contaminants in soils to acceptable levels.	Phytoremediation of lead and cadmium is not a standard remedial method. Because it is not a standard technology, regulatory agencies are likely to require bench- and pilot-scale testing, including periodic laboratory analysis of soil samples prior to authorizing full-scale implementation. These tests are likely to increase the cost and duration of the project such that it would be much more expensive than the more conventional methods

Table 3-1
Alternatives That Were Considered and Dismissed (Continued)

Alternative	Actions	Considerations
		evaluated in this ABCA. Phytoremediation requires that the plants root in the impacted soil, which would presumably greatly reduce the usable area of the property during remediation. Additionally, it is unclear what would need to occur with the plant materials upon completion. Because of the high cost, long duration, loss of use of a large portion of the property during remediation, and uncertainty regarding new and untested technologies, phytoremediation was considered and rejected.

In developing the range of alternatives, it is assumed in those alternatives where contaminants will be left in place, land use covenants (LUCs) and institutional controls (ICs) will be necessary to ensure continued protection to human health and the environment. The following cleanup alternatives were evaluated to mitigate the potential impacts from CBM and soil:

Alternative CBM 1: No Action

Alternative CBM 2: Limited Hazardous Building Materials Abatement with ICs

Alternative CBM 3: Complete Hazardous Building Materials Removal

Alternative SS 1: No Action

Alternative SS 2: Removal and Disposal of ACM and Off-Site Disposal with ICs

Alternative SS 3: Capping of Contaminated Soil, Removal and Disposal of ACM Piles, with ICs

Alternative SS 4: Excavation of Contaminated Soil, Removal and Disposal of ACM and Debris Piles, Confirmation Sampling, and Off-Site Disposal with ICs

A CBM alternative and an SS alternative must be combined to provide a remedy that will address potential impacts both from contaminated building materials and soil. If the selected remedies do not address all contaminants, additional institutional controls (ICs) may be required in some or all buildings and assessment areas. The cost estimates presented in this document are rough order-of-magnitude estimates that were prepared solely for the comparison of the identified alternatives and should not be used as design-level estimates. Costs for general rebuilding and improvements (e.g., constructing eco-cabins and cultural use areas) are not included. Descriptions of each of the above alternatives and the results of the comparative analysis are presented in the following sections. Regulatory agencies were not contacted, and Site-specific cleanup action levels were not established.

Preliminary ABCA cost estimates are presented in Table 3-2 below.

Table 3-2
Preliminary ABCA Alternative Costs by Building

	Building(s) or Areas Remediated	Capital Cost	Annual Maintenance and Monitoring Cost	Present Worth of Annual Monitoring	Alternative Present Worth
Alternative CBM 1	NA	--	--	--	**$0**
Alternative CBM 2	Hotel	$3,800,000	$5,000	$86,000	**$3,886,000**
	Restaurant	$2,290,000	$4,000	$69,000	**$2,359,000**
	Harbor Office/N. Rec. Hall	$80,000	$4,000	$69,000	**$249,000**
	XVR Registration Office	$30,000	$4,000	$69,000	**$99,000**
	Maintenance Yard	$50,000	$4,000	$69,000	**$119,000**
	XVR Recreation Hall	$150,000	$4,000	$69,000	**$219,000**
	Ship Ashore Registration Office	$60,000	$4,000	$69,000	**$129,000**
Alternative CBM 3	Hotel	$12,690,000	--	--	**$12,690,000**
	Restaurant	$5,840,000	--	--	**$5,840,000**
	Harbor Office/N. Rec. Hall	$540,000	--	--	**$540,000**
	XVR Registration Office	$80,000	--	--	**$80,000**
	Maintenance Yard	$100,000	--	--	**$100,000**
	XVR Recreation Hall	$330,000	--	--	**$330,000**
	Ship Ashore Registration Office	$90,000	--	--	**$90,000**
	Ship	$560,000	--	--	**$560,000**
Alternative SS1	NA	--	--	--	**$0**
Alternative SS2	DU-08	$53,000	$500	$9,000	**$62,000**
Alternative SS3	D0-02 & DU-08	$139,000	$1,000	$17,000	**$156,000**
Alternative SS4	D0-02 & DU-08	$215,000	--	--	**$215,000**

3.2.1 Alternative CBM 1 and SS 1 – No Action

Alternatives CBM 1 and SS 1 No Action are included as a baseline for comparison to all other proposed alternatives. The No Action Alternative assumes the CBM, contaminated soils, and ACM in debris piles would remain in place, and would not be abated or otherwise addressed.

Effectiveness: These options will not provide mitigation of the potential human health or environmental concerns. If no corrective action is taken, the identified contamination is likely to prohibit construction for reuse — at a minimum, worker safety in reducing exposure to lead and

asbestos if renovation is undertaken, and potential regulatory interaction and approval, would be required. The effectiveness of Alternatives CBM 1 and SS 1 was ranked as low.

Implementability: This alternative is easily implemented.

Cost: No costs would be incurred during the implementation of these alternatives.

3.2.2 CBM 2: Limited Hazardous Building Materials Abatement with ICs

Under Alternative 2, limited abatement of friable asbestos waste, PCB-containing building materials, and abatement of LBP materials for worker and public health protection would be conducted at all DUs. Short-term impacts would include an increase in noise and truck traffic and temporarily restricted access to certain areas of the property.

Based on the level of deterioration of ACM and interior and exterior paint on the Ship, and the moisture damage to the Ship's structural integrity, the limited hazardous building abatement scenario was deemed infeasible and would not be fully protective.

Abatement activities include removing friable asbestos waste, stored ACM building materials, materials that may contain PCB oils, including the fluorescent light ballasts, removal of LBP that is blistering and peeling, and encapsulating the LBP that is not deteriorated. This alternative assumes the hiring of a Certified Asbestos Abatement contractor and LBP removal contractor(s) to comply with applicable regulations for protection of worker and public health.

This alternative would likely require ICs that could require ACM removal, continued encapsulation of the LBP, or depending on the concentration and condition, complete LBP removal if the buildings are to be further renovated or demolished.

Effectiveness: Limited abatement would leave CBM in Site buildings. It will mitigate human health risks from lead and asbestos by preventing dermal contact and fugitive dust emissions. Regular inspections and recurring maintenance would be required to maintain long-term protectiveness. Because contaminants are not entirely removed, the effectiveness of Alternative CBM 2 is ranked moderate.

Implementability: This alternative includes removing deteriorated LBP and ACM materials. The materials, equipment, and personnel required are easily obtainable and standard practices. Specialized labor that may not be available in the Crescent City area may need to be brought from another city (e.g., Redding or Sacramento) to the Site. This alternative is moderately easy to implement.

Cost: The cost of Alternative CBM 2 is preliminarily estimated to be $7,050,000.

3.2.3 Alternative CBM 3: Complete Hazardous Building Materials Removal

Under this alternative, building materials containing ACM, LPB, and or PCBs would be removed from the all eight structures, including the ship, prior to demolition/renovation actions. Residual contaminants would be removed from areas of the eight structures where these contaminants are

currently suspected or have been identified. Short-term impacts would include an increase in noise and truck traffic and temporarily restricted access to certain areas of the property.

Materials would be properly sorted and packaged for off-site disposal in an appropriately licensed landfill.

This alternative assumes the hiring of a Certified Asbestos Abatement contractor and LBP removal contractor(s) to comply with applicable regulations for protection of worker and public health. For DU-02, this alternative would require sand blasting, power-washing, or a similar technique, to remove and then capture residual contaminants on painted surfaces. This alternative would also require removing PCB containing materials from DU-02, including PCB oils in old fluorescent light ballasts. For DU-03, DU-05, and DU-07, asphalt and/or concrete from buildings may require asbestos abatement and/or hazardous waste handling if these features are mechanically disturbed during removal activities. For DU-08, removal of friable ACM pipe lengths and fittings from within the main buildings and sheds would be required.

Effectiveness: Complete hazardous building materials abatement will remove the threat of accidental ingestion and/or dermal contact to current and future Site users. The effectiveness of Alternative 3 is ranked high.

Implementability: This alternative includes removing PCB-containing materials, ACM, and LBP. Work areas will need to be fully contained during LBP removal activities from DU-02 for worker and public safety. The materials, equipment, and personnel required are easily obtainable and standard practices. However, specialized labor may need to be procured outside the Crescent City-Smith River area. This alternative is moderately easy to implement.

Cost: The cost of Alternative CBM 3 is preliminarily estimated to be $20,299,000.

3.2.4 Alternative SS 2: Removal and Disposal of ACM and Off-Site Disposal with ICs

Under this alternative, activities would be limited to removal of ACM debris from areas within DU-08 (Figure 4) by a Certified Asbestos Abatement contractor. Because the Phase II soil investigation for asbestos was limited in scope, additional characterization of soils adjacent to ACM debris piles would be included as part of the asbestos abatement activities. This alternative assumes that 1 foot of soils beneath the debris piles will need to be removed as well as the ACM debris piles. If additional soil characterization determines that asbestos or other contaminants are present in soils beneath or adjacent to DU-08 at concentrations above screening levels, costs would increase.

This alternative assumes that RSLs for commercial/industrial soils are selected. Soils with exceedances of action levels set by the State of California for commercial/industrial soils would not be addressed, as federal action levels are selected for remedial activities. This alternative may not be considered administratively feasible unless federal regulations and action levels are selected.

Because this alternative would leave contaminated soil on the Site, it is assumed ICs would be required to ensure the land is used only for commercial or industrial purposes unless additional remedial work is performed.

- *Effectiveness:* Limited removal and disposal of ACM debris would leave contamination in Site soils. It will mitigate human health risks from asbestos by preventing dermal contact and fugitive dust emissions. The effectiveness of Alternative SS 2 is ranked moderate.

Implementability: Abatement of all identified ACM debris from open areas within DU-08 would be required. The materials, equipment, and personnel required are easily obtainable and standard practices. This alternative is moderately easy to implement.

Cost: The cost of Alternative SS 2 is estimated to be $62,000.

3.2.5 Alternative SS 3: Capping of Contaminated Soil in DU-02 and DU-08, Removal and Disposal of ACM Debris, with ICs

Under Alternative SS 3, ACM debris would be identified and removed from the Site. Soils with exceedances in ESLs and/or DTSC-SLs for commercial/industrial soils would be addressed by limited capping protective of commercial/industrial uses.

ACM debris piles in the Maintenance Yard (DU-08) would be removed by a Certified Asbestos Abatement contractor (Figure 4). Because the Phase II soil investigation for asbestos was limited in scope, additional characterization of soils adjacent to ACM debris piles would be included as part of the asbestos abatement activities. This alternative assumes that 6 inches of soils beneath the debris piles will need to be removed as well as the ACM debris piles. If additional soil characterization determines that asbestos or other contaminants are present in soils beneath or adjacent to DU-08 at concentrations above screening levels, costs would increase.

Soils surrounding the Ship Ashore Museum and Gift Shop (DU-02) would be scraped to 2 inches and capped with a minimum of 18 inches of clean fill placed in two lifts. It was assumed that the scraped material would contain hazardous and or soluble lead and need to be disposed of as hazardous waste. The area would be stabilized to prevent erosion and reseeded.

An impermeable (e.g., pavement or concrete) or semipermeable (e.g., soil) cover would be installed over the areas that exceed Site Action Levels in DU-02 (approximately 5,250 square feet [sf]) and DU-08 (approximately 225 sf) (Figure 4). Confirmation samples would be collected to ensure the contamination had been removed. For the purposes of cost estimating for this ABCA, a semipermeable soil and grass cap was assumed for DU-2 and a 1-foot compacted gravel cap was assumed for DU-08. It is assumed that the areas could be used for commercial/industrial activities as long as the covers remain intact.

Because this option does not remove the contaminated soil, the cover would have to be maintained as a state of disrepair might render the cap ineffective. The capping alternative would leave the Site contaminants in place and ICs, such as periodic inspection, maintenance, and repair of the cap, would be necessary to ensure the remedy remains protective.

Because this alternative would leave contaminated soil on the Site, it is assumed ICs would be required to ensure the land is used only for commercial or industrial purposes unless additional remedial work is performed.

Effectiveness: Capping of cadmium-contaminated soil and removal of ACM debris piles and adjacent soil will mitigate human health risks from lead, cadmium, and asbestos by preventing dermal contact and fugitive dust emissions. However, ICs, including inspection of maintenance of the cap, are likely to be necessary. Because the remedy requires long-term maintenance to remain protective, the effectiveness of Alternative 2 is ranked moderate.

Implementability: This alternative includes removing ACM debris and installing a semipermeable cover. The materials, equipment, and personnel required are easily obtainable and standard practices. This alternative is moderately easy to implement.

Cost: The cost of Alternative SS 3 is estimated to be $156,000.

3.2.6 Alternative SS 4: Excavation of Contaminated Soil, Removal and Disposal of ACM and Debris Piles, Confirmation Sampling, and Off-Site Disposal with ICs

Under this alternative, ACM debris would be identified and removed from the Site. Soils with exceedances in DTSC-SLs for commercial/industrial soils would be addressed through limited excavation and removal.

ACM debris piles in the Maintenance Yard would be removed by a Certified Asbestos Abatement contractor. Because the Phase II soil investigation for asbestos was limited in scope, additional characterization of soils adjacent to ACM debris piles would be included as part of the asbestos abatement activities. If additional soil characterization determines that asbestos is present in adjacent soils, the removal of ACM debris piles would include an additional 6 inches of the surface soil beneath the ACM debris piles. This alternative assumes that a 15-foot by 15-foot area will need to be removed as well as the ACM debris piles. Costs would increase if additional asbestos is present.

This alternative would involve excavating contaminated soils above commercial/industrial Site Action Levels (Figure 4) to an estimated maximum depth of 1 foot. Excavated soil would be characterized and profiled for disposal. Short-term impacts, including temporary increases in noise and truck traffic, would occur.

The surface sample DU-02-0 was submitted for analysis using the California WWET. The soluble lead concentration in the sample was 7.7 mg/L, which exceeds the California STLC limit of 5 mg/L. Soils adjacent to the Gift Shop may require treatment as hazardous waste, depending on the disposal site.

The targeted soil excavation, confirmation sampling, and off-site disposal would remove soil that exceeds Site Action Levels in DU-02 (approximately 5,250 sf) and DU-08 (approximately 225 sf). For the purpose of this estimate, it was assumed that soil will be excavated to a maximum depth of 1 foot bgs. After excavation, four 4-point composite samples per 20-foot by

20-foot grid will be collected for analysis of metals relevant for each area (i.e., lead and cadmium, respectively).

The excavated soil would be stockpiled on-site, pending laboratory analysis for waste characterization. Waste characterization analysis from a soil sample collected from the Gift Shop area exceeded STLC regulatory limits of 5 mg/L; therefore, soil from this area may need to be managed as a California hazardous waste.

For the purposes of this ABCA, to decrease the number of waste streams, it was assumed soil from DU-02 and DU-08 would be consolidated and stockpiled on-site, pending laboratory analysis for waste characterization (two waste characterization samples assumed). Although the TBA preliminary waste characterization indicates that the soil would be a California hazardous waste, further testing of stockpiled soil may demonstrate that the soil could be classified as non-hazardous, which could reduce estimated disposal costs by as much as $200 per ton.

For the purposes of this ABCA, disposal of soil from DU-02 as California hazardous waste has been costed. Soil from the remaining excavation areas in DU-08 will be consolidated and stockpiled on-site separately, pending laboratory analysis for waste characterization (two waste characterization samples assumed). For the purposes of this ABCA, disposal of soil from DU-08 as a non-hazardous waste was assumed. The ACM debris pile and excavated soil would then be transported off-site for disposal at appropriately licensed treatment/disposal facilities. The excavation areas would be backfilled and compacted with clean material appropriate for planned use.

Because this alternative would leave contaminated soil on the Site at concentrations that exceed screening levels for residential reuse, it is assumed ICs would be required to ensure the DUs are used only for commercial or industrial purposes unless additional remedial work is performed.

Effectiveness: Excavation of soil and removal of ACM debris piles will mitigate the threat of accidental ingestion and/or dermal contact with lead, cadmium, and asbestos to current and future Site users. The effectiveness of Alternative SS 4 is ranked moderately high.

Implementability: This alternative includes excavating contaminated soils and removing ACM debris piles. The materials, equipment, and personnel required are easily obtainable and standard practices. This alternative is moderately difficult to implement.

Cost: The cost of Alternative SS 4 is estimated to be $215,000.

3.3 COMPARISON OF ALTERNATIVES

Alternatives SS 1 and CBM 1 No Action do not meet the project goal and, therefore, are dismissed without additional evaluation.

Alternative CBM 2: Limited Hazardous Building Materials Abatement with ICs is considered protective in the short- and long- term for the planned reuse of the property because it mitigates exposure to PCBs, asbestos, and lead. Because CBM would remain on Site, this alternative would require encapsulation of remaining CBM, and maintenance of encapsulated CBM would be necessary to ensure the remedy remains protective. Based on a reduced volume of building

materials removed, short-term impacts would be reduced less than that of CBM 3. It is less expensive to implement than Alternative CBM 3, but requires long-term costs for ICs, typically in the form of long-term inspection and maintenance programs.

Alternative CBM 3: Complete Hazardous Building Materials Removal is considered protective in the short- and long-term for the planned reuse of the property because CBM is removed from the Site. This alternative proposes conventional abatement methods. It is more expensive to implement than CBM 2, but may be considered more desirable because it is more effective and would not have the ICs associated with long-term inspection and maintenance of a cap.

Alternative SS 2: Removal and Disposal of ACM and Off-Site Disposal with ICs is considered protective in the short- and long-term for the planned reuse of the property because it mitigates exposure to asbestos from debris piles and impacted soil. Because other impacted soil would remain on Site, this alternative would require ICs that restrict land use to only commercial or industrial purposes unless additional remedial work is performed.

Alternative SS 3: Capping of Contaminated Soil, Removal and Disposal of ACM Piles, with ICs is considered protective in the short- and long- term for the planned reuse of the property because it mitigates exposure to impacted soil and ACM debris. Because the impacted media would remain on Site, this alternative would require maintenance of the cap and ICs would be necessary to ensure the remedy remains protective. It is more expensive to implement than Alternative SS 2 and requires ongoing maintenance, but may be considered more desirable because it mitigates soil impacts and is more protective of human health.

Alternative SS 4 Targeted Soil Excavation, Removal of Stockpiled Debris, Confirmation Sampling, and Off-Site Disposal, Water Supply Well Closure with ICs is considered protective in the short- and long- term for the planned reuse of the property because impacted soil and ACM debris are removed from the Site. This alternative proposes conventional sampling and excavation methods. It is more expensive to implement than Alternative SS 3, but may be considered more desirable because it is more effective and would not have the constraints associated with long-term cap maintenance.

3.4 REMEDIATION TECHNOLOGIES

EPA provides guidance for specific technologies that may be used for the remediation of hazardous wastes and other contaminants. Detailed links for EPA's remediation technology guidance, as well as case studies and demonstrations, are available online at https://www.epa.gov/remedytech (EPA, 2018b).

3.5 CONSIDERATION OF CLIMATE CHANGE IMPACTS

Scientific evidence demonstrates that the climate is changing at an increasingly rapid rate, outside the range to which society has adapted in the past. These changes can pose significant challenges to EPA's ability to fulfill its mission. EPA must adapt to climate change if it is to continue fulfilling its statutory, regulatory, and programmatic requirements. EPA is therefore anticipating and planning for future climate changes to ensure it continues to fulfill its mission of protecting human health and the environment even as the climate changes.

In February 2013, EPA released its draft Climate Change Adaptation Plan to the public for review and comment. The plan relies on peer-reviewed scientific information and expert judgment to identify vulnerabilities to EPA's mission and goals from climate change. The Region 9 plan identifies vulnerabilities in Region 9, including lack of rainfall and the prospect of future droughts, reduction in groundwater supply, sea level rise, projected temperature increase and its impact on urban areas, wildfire prevalence, agricultural and ocean productivity, and habitat loss and ecosystem shift. Priority is being placed on mainstreaming climate adaptation within EPA and encouraging adaptation planning across the entire federal government.

The Site is located approximately one-quarter mile inland from the closest ocean at an elevation of approximately 30 feet above mean sea level and is, therefore, expected to be impacted directly by sea level rise. Increased ambient temperatures, more frequent and prolonged droughts and heat waves, more intense storms, beach erosion, reduced availability of surface and groundwater, and more frequent and dangerous floods and wildfires are the expected primary impacts of climate change in the area around Smith River, California.

3.6 GREEN AND SUSTAINABLE REMEDIATION GUIDANCE

When implemented effectively, green and sustainable remediation practices enhance the environmental benefits offered by federal cleanup and redevelopment programs, such as the EPA Brownfields Program. The principles governing green and sustainable remediation for EPA cleanup programs have been outlined in greater detail in EPA's *Principles for Greener Cleanups* (EPA, 2009), but generally seek to "optimize environmental performance and implement protective cleanups that are *greener* by increasing our understanding of the environmental footprint and, when appropriate, taking steps to minimize that footprint."

The following benefits can be reached through preferential use of green remediation approaches:

- Waste production and use of materials can be minimized.
- Impacts to water quality and water resources can be avoided.
- Air emissions and greenhouse gas production can be reduced.
- Natural resources and energy can be conserved.

3.6.1 Administrative Suggestions

Emphasis should be placed on selecting contractors, including laboratories that follow green remediation best management practices. Use of contractors that place priority on clean fuel and emission technologies should be encouraged. Redevelopment plans and future use of the Site should guide the type of sampling and remediation, ensuring efficient and sustainable methods. Additionally, renewable energy production facilities should be encouraged as future development possibilities. Reporting efforts, both draft and final documents, should be submitted in digital format, rather than as hard copies. Outreach to local communities should optimize the use of electronic and centralized communication.

3.6.2 Operations Suggestions

The following suggestions should be considered to help achieve green and sustainable remediation at the Site:

- Whenever possible, non-renewable energy consumption should be minimized through energy efficient equipment, use of renewable energy supply, and renewable energy generation systems on-site.
- Sustainable practices, such as using existing structures, capping, or constructing on-site repositories to reduce the use of fossil fuels, and use of native vegetation, should be encouraged.
- Environmentally preferable products, such as those outlined in EPA's Sustainable Marketplace: Greener Products and Services website (EPA, 2018c), https://www.epa.gov/greenerproducts, should be used where feasible, including environmentally friendly electronics, recycled products, and energy-efficient lighting.
- Mobilization during field efforts should use fuel-efficient and/or alternative fuel vehicles when feasible, encourage carpooling, and should avoid environmentally sensitive areas when placing operations centers and command posts.
- Waste should be minimized, through conservation efforts, recycling, and reuse of items. The following procedures can be followed to minimize waste:
  - Field contamination screening should use non-invasive technologies where feasible.
  - Quantity of field samples should be minimized, and mobile laboratories should be prioritized when appropriate.
- Drilling and excavation activities should incorporate clean fuel and emissions controls, including idle reduction devices, use of ultra-low sulfur diesel and/or fuel-grade biodiesel, advanced emission controls, EPA or California Air Resources Board-verified emission control technology, and the performance of routine engine maintenance.
- Efficiency during transport and disposal operations should be maximized, and practices such as back-loading should be used whenever possible.

4. LIMITATIONS AND ADDITIONAL ASSESSMENT NEEDS

Because of a request from the Applicant, at the time this report was prepared the complete Phase I/II TBA report was not completed. In some cases, preliminary information was used as the basis for assumptions made in this ABCA. The TBA and ABCA are expected to provide a valuable characterization of current and historical conditions of the subject property, including a summary of historical site use, previous investigations and regulatory involvement, site reconnaissance and photo documentation, results of recent soil and building material assessment work, and preliminary costs estimates for proposed remedies that could permit site reuse. It is anticipated that the Draft Phase I/II TBA Report and final ABCA will be available in November 2018.

Portions of the stern of the ship were not sampled/inspected because of safety concerns regarding their structural integrity. Also, the keel of the ship was not accessible because no safe entry or exit routes not requiring a confined space entry were identified during two site visits. Identification of ACM, LBP, PCBs, and other hazardous material in inaccessible portions of the ship could not be made; however, the data obtained during the Phase II sampling were used to estimate the costs for Cleanup Alternatives CBM 2 and CBM 3. Contamination was assumed to be absent from these portions of the ship. If additional contamination is encountered in these areas during renovation of the ship, the abatement areas may be expanded and hazardous waste disposal volumes may increase, increasing costs for these alternatives.

The extent of the lead, cadmium, and asbestos in the soil was not defined during the Phase II activities; however, the data obtained were used to estimate the costs for Cleanup Alternatives SS 2, SS 3, and SS 4. Contamination was assumed to be present throughout the decision units with detections above human health screening levels. If additional information is developed, the cap and/or excavation areas may be reduced or expanded. The assumptions provide a conservative, likely overestimation, of the amount of soil that would require excavation and disposal. Samples should be collected to determine the appropriate off-site disposal option. The Phase II preliminary results and this associated ABCA can provide mitigation guidance but are not to be used as full characterization or risk assessment reports. The information presented therein represents only the Site-specific, recognized environmental conditions and opinions of the environmental professional.

ABCA estimates are based on limited site information and do not reflect regulatory agency input or site-specific pricing from vendors and contractors required to perform the work. The estimated costs are rough order of magnitude estimates that were prepared solely for the comparison of the identified alternatives and should not be used as design-level estimates. Additional remedial technologies may be available that were not considered in this ABCA.

5. REFERENCES

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U.S. Environmental Protection Agency (EPA). 1987. 40 Code of Federal Regulations (CFR) Part 763; Asbestos-Containing Materials in Schools; Final Rule. October.

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EPA. 2018c. Sustainable Marketplace: Greener Products and Services. http://www.epa.gov/greenerproducts. Last updated on June 7.

U.S. Department of Housing and Urban Development (HUD). 2012. *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. July.

San Francisco Bay Regional Water Quality Control Board (RWQCB). 2016. Environmental Screening Levels (ESLs), Rev.3. February.

U.S. Geological Survey (USGS). 2013. Geochemical and mineralogical data for soils of the conterminous United States: USGS Data Series 801, September.

FIGURES

0 Scale in Feet 1,950

PREPARED BY:
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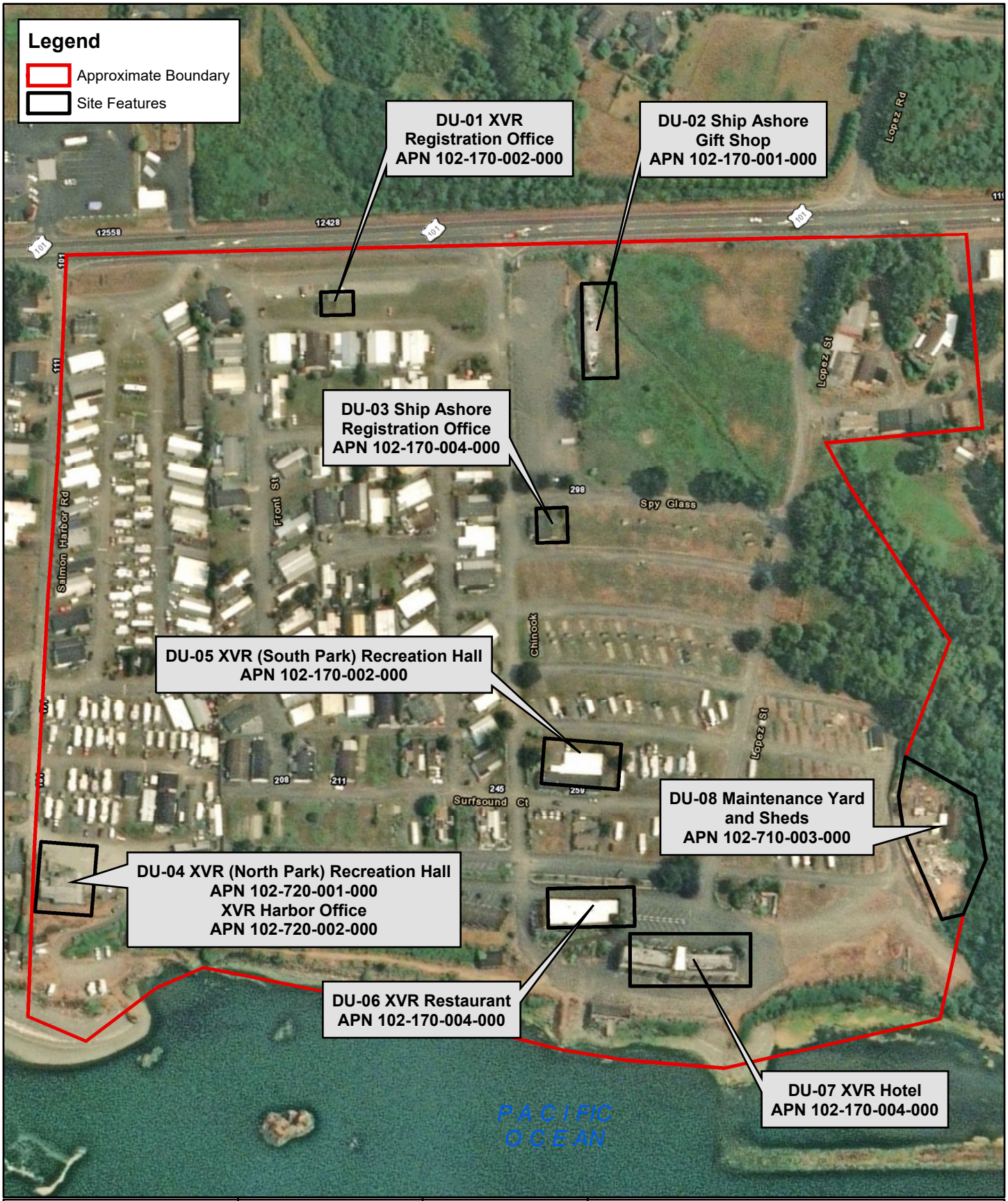
2300 Clayton Rd.
Suite 900
Concord, CA 94520

PREPARED FOR:
EPA Region 9
Brownfields Program

FIGURE 1

SITE LOCATION MAP
Tolowa Dee-ni' Nation
XVR and Salmon Harbor Sites
Analysis of Brownfields Cleanup Alternatives
Smith River, Del Norte County, CA

Project No.: 20074.067.010.0001.01



0 Scale in Feet 240

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PREPARED FOR:
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Brownfields Program

FIGURE 2
SITE LAYOUT MAP
Tolowa Dee-ni' Nation
XVR and Salmon Harbor Sites
Analysis of Brownfields Cleanup Alternatives
Smith River, Del Norte County, CA

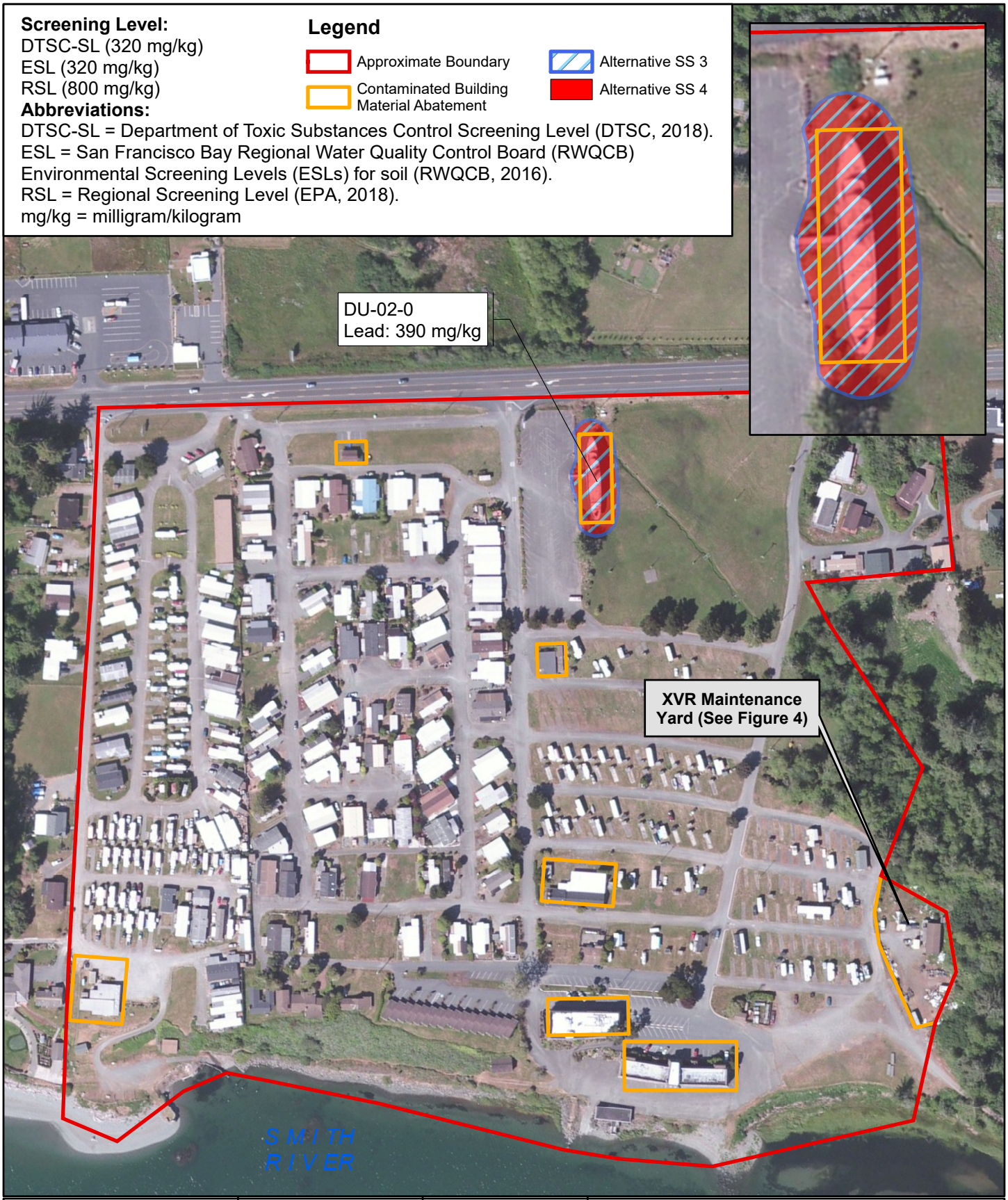
Project No.: 20074.067.010.0001.01

Screening Level:
DTSC-SL (320 mg/kg)
ESL (320 mg/kg)
RSL (800 mg/kg)

Legend

- Approximate Boundary
- Contaminated Building Material Abatement
- Alternative SS 3
- Alternative SS 4

Abbreviations:
DTSC-SL = Department of Toxic Substances Control Screening Level (DTSC, 2018).
ESL = San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for soil (RWQCB, 2016).
RSL = Regional Screening Level (EPA, 2018).
mg/kg = milligram/kilogram



0 Scale in Feet 250

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FIGURE 3

DU-01 THROUGH DU-07 ALTERNATIVES
Tolowa Dee-ni' Nation
XVR and Salmon Harbor Sites
Analysis of Brownfields Cleanup Alternatives
Smith River, Del Norte County, CA

Project No.: 20074.067.010.0001.01

Screening Level:
DTSC-SL (7.3 mg/kg)
ESL (580 mg/kg)
RSL (980 mg/kg)

Legend

Maintenance Yard
Approximate Boundary
Alternative SS 3
Alternative SS 4
Suspect ACM

Abbreviations:
DTSC-SL = Department of Toxic Substances Control Screening Level (DTSC, 2018).
ESL = San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for soil (RWQCB, 2016).
RSL = Regional Screening Level (EPA, 2018).
mg/kg = milligram/kilogram

0 Scale in Feet 40

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FIGURE 4
DU-08 MAINTENANCE YARD ALTERNATIVES
Tolowa Dee-ni' Nation
XVR and Salmon Harbor Sites
Analysis of Brownfields Cleanup Alternatives
Smith River, Del Norte County, CA

Project No.: 20074.067.010.0001.01

Attachment I

PUBLIC NOTICE

The Tolowa Dee-ni' Nation is seeing your input on the revitalization and redevelopment of X'aa-wan'-k'wvt Village and Resort (XVR). Based on the community input received over the last year during the Tribe's extensive Land Use Planning process and XVR visioning sessions, we are pursuing a brownfields cleanup grant to address some of the legacy containment issues at XVR.

Following a Phase II targeted brownfields assessment, an Analysis of Brownfields Cleanup Alternatives (ABCA) has been developed. We are seeking your input on the grant proposal, including the ABCA.

These documents are available for public review and comment at:

--Natural Resources Office: 400 North Indian Road, Smith River, CA
--Administration Office: 140 Rowdy Creek Road, Smith River, CA

All comments can be provided at the **Open Council Meeting on January 10th at 5:30pm at Howonquet Hall**, Smith River or sent directly to the Natural Resources Director at megan.vanpelt@tolowa.com.

Comments shall be received and considered until January 17th at 5pm.

OMB Number: 4040-0004
Expiration Date: 12/31/2019

Application for Federal Assistance SF-424

* 1. Type of Submission:
- [ ] Preapplication
- [x] Application
- [ ] Changed/Corrected Application

* 2. Type of Application:
- [x] New
- [ ] Continuation
- [ ] Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received: 01/31/2019

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier: CA

8. APPLICANT INFORMATION:

* a. Legal Name: Tolowa Dee-ni' Nation

* b. Employer/Taxpayer Identification Number (EIN/TIN): 680087275

* c. Organizational DUNS: 1845676830000

d. Address:

* Street1: 140 Rowdy Creek Rd
Street2:
* City: Smith River
County/Parish:
* State: CA: California
Province:
* Country: USA: UNITED STATES
* Zip / Postal Code: 95567-9441

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:
* First Name: Cynthia
Middle Name:
* Last Name: Ford
Suffix:

Title:

Organizational Affiliation:

* Telephone Number: 707-487-9255
Fax Number:

* Email: cynthia.ford@tolowa.com

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

I: Indian/Native American Tribal Government (Federally Recognized)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.818

CFDA Title:

Brownfields Assessment and Cleanup Cooperative Agreements

*** 12. Funding Opportunity Number:**

EPA-OLEM-OBLR-18-07

* Title:

FY19 GUIDELINES FOR BROWNFIELDS CLEANUP GRANTS

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Xaa-wan'-k'wvt (Howonquet) Village and Resort South RV Park Cleanup

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: CA-002 * b. Program/Project: CA-002

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 09/30/2019 * b. End Date: 09/29/2021

18. Estimated Funding ($):

* a. Federal	500,000.00
* b. Applicant	100,000.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	600,000.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name: Denise

Middle Name:

* Last Name: Richards Padgette

Suffix:

* Title: Tribal Chairperson

* Telephone Number: 7074879255 Fax Number:

* Email: denise.padgette@tolowa.com

* Signature of Authorized Representative: Tim Hoone * Date Signed: 01/31/2019